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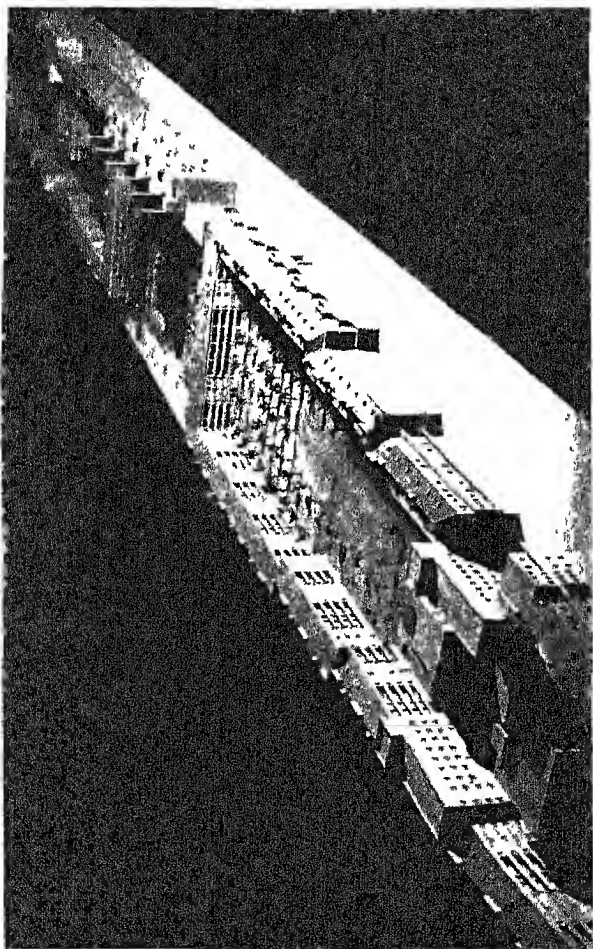
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THE HOUSING PROGRAM OF THE  
CITY OF VIENNA



THE KARL MARX HOF  
(Photograph from block model, by courtesy of Gesellschaft für  
Wohnwirtschaftswissenschaften in Wien)

THE HOUSING PROGRAM  
OF THE  
CITY OF VIENNA

BY  
CHARLES O. HARDY

assisted by  
ROBERT R. KUCZYNSKI

WASHINGTON, D.C.  
THE BROOKINGS INSTITUTION

1934

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## DIRECTOR'S PREFACE

The virtual cessation of residential building activity during the economic depression of the last few years has caused many to feel deep concern as to how such activity could be revived by private agencies or whether it would be necessary or desirable to turn to governmental activity. In view of these circumstances special interest attaches to the experiments which have been conducted elsewhere along these lines. In the present volume Charles O. Hardy presents the details of an experiment conducted by the city of Vienna since the close of the war. It possesses peculiar interest because of the fact that it was carried on under the auspices of the Social Democratic Party which has just given up the reins of government in Vienna after the longest continuous period of authority enjoyed by a Marxian government anywhere outside of Soviet Russia. We believe this to be a unique project of municipal building and municipal administration of residential property and the author has sought to present it in an objective manner for whatever lessons it may have for those persons in our own country who are interested in this field.

The committee from the staff of the Institute of Economics which co-operated with the author were Harold G. Moulton and Clark Warburton.

EDWIN G. NOURSE  
*Director*

Institute of Economics  
July 1934



## AUTHOR'S ACKNOWLEDGMENTS

My indebtedness to Dr. Robert R. Kuczynski requires acknowledgment beyond that given on the title page. This study found its inception in a suggestion made by Dr. Kuczynski, and it was originally planned that the investigation should be made jointly by him and myself. The plan was that Dr. Kuczynski would bring out in German a much more detailed study of the Vienna housing problem than is here presented, and that we would collaborate in the publication of a briefer English version. Circumstances compelled the indefinite postponement of the German edition and made it impossible for Dr. Kuczynski to collaborate actively in the preparation of the English manuscript. Instead, he prepared for the Institute of Economics a number of detailed memoranda dealing with specific aspects of the problem. From these memoranda I have drawn nearly all the statistical material which is presented in Chapters I to VI and all the data in the appendixes. I have also made free use of the text of the reports; indeed in several places the text is a free translation of Dr. Kuczynski's memoranda. Final responsibility for the selection of material, however, and the entire responsibility for the conclusions, rest with me and my advisory committee. Dr. Kuczynski's memoranda, in typewritten form, running to some 600 pages of German text, are available at the library of the Brookings Institution for the use of accredited scholars.

Much assistance was given us by officials of the government of the city of Vienna including Professor Julius Tandler, Stadtrat Anton Weber, Dr. Heinrich Pawlik, and especially by Dr. Otto Neurath, director, and Dr.

Bauermeister, assistant director, of the *Gesellschafts-und Wirtschaftsmuseum*. Assistance was also given by Professor Ludwig Mises and by the officers of various Austrian semi-political organizations which are interested in the housing question.

The manuscript has been read and valuable suggestions made by Dr. Karl Pribram, Adah Lee, and Dr. Johann W. Dreyhausen-Ehrenreich of The Brookings Institution, and by Dr. Gustav Seidler of the staff of the National Recovery Administration.

CHARLES O. HARDY

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### EQUIVALENT MEASURES

(Currency comparisons are with United States currency  
of 1919-32 standard)

Meter . . . . .	39.37 inches
Kilometer . . . . .	0.621 mile
Square meter . . . . .	10.764 square feet
Hektare . . . . .	2.471 acres
Crown (pre-war, gold) . . . . .	20.26 cents
Crown (paper, stabilized) . . . . .	1/700 of one cent
Groschen (100 paper crowns) . . . . .	0.14 cent
Schilling (100 groschen) . . . . .	14.07 cents



## INTRODUCTION

In February 1934 Dollfuss' heavy artillery knocked at the doors of the Karl Marx Hof to announce the end of one of the most elaborate and carefully thought-out programs of municipal social service which modern history records. The city of Vienna had been continuously under the control of the Social Democratic party for nearly 15 years. Throughout this period it had been the continuous policy of the party that the city government should render to the people of the city gratuitously, or at nominal cost, as extensive services as its financial resources, accumulated by drastically progressive taxes, would permit. In this program by far the most ambitious undertaking was the provision of housing capital at the expense of the community.

The Social Democratic party professed as an ideal the general principle that housing ought to be furnished free to those inhabitants of a city whose demand does not exceed the normal standard of living of the community. The actual program never went this far, since only capital costs, not operating expenses, have been met out of public funds. But the program has been defended on the ground that the provision of normal housing is not merely a public utility—that it is a public service to be rendered without charge, just as is the provision of school houses, hospitals, and jails. This viewpoint has been defended by Anton Weber, for many years the head of the Housing Bureau of the city, in the following terms:

The crowning feature of the social policy of Vienna since 1919 has been the guarantee of shelter for every one and the provision of modern, wholesome dwellings. The city govern-

ment of Vienna regards the building of homes as the task of the whole community, just as it does the erection of school buildings and hospitals. The present Vienna City Council, in an overwhelming majority, is of the opinion that the unwholesome housing conditions under which the population of Vienna suffers in the present day are due to the fact that the provision of housing down to 1918 was left to private enterprise. A good roomy, well-lighted dwelling is a major cultural factor in the life of every people. A damp dark dwelling is the nesting place of disease; it sends to the hospitals and tuberculosis sanitariums unproductive human material which burdens the community more than would the building of proper dwellings.<sup>1</sup>

Though no effort has been made to carry out such a program of absolute free housing as these statements of principle imply, the Social Democratic party undertook to alleviate housing conditions by public activity as soon as it came into power in 1919. Even before the war, housing conditions in Vienna had been notoriously bad. In 1914 there were more than 400,000 homes, or about three-fourths of the whole number in the city, which consisted of only one or two rooms and a small kitchen. Families—even those with steady incomes—were crowded together in cramped and ill-ventilated quarters. Very few small dwellings were vacant—of the smallest sized group which alone could be afforded by an unskilled laborer, less than 1 per cent. The homes of the poor were filled with lodgers, and public refuges for the homeless were chronically overcrowded.

The war and its aftermath changed chronic distress into acute crisis. During the war Austria, in common with most warring countries, adopted a policy of rent restriction, and this policy to a larger degree than anywhere else has become a fixed feature of the country's economic

<sup>1</sup> *Das Neue Wien*, Vol. I, p. 193. A similar viewpoint as to the provision of free housing was avowed by Mayor Seitz in an interview with the author.

life. As revised after the war, the rent restriction laws almost completely expropriate the landlord for the benefit of the tenant.<sup>2</sup> This policy has helped the situation of many tenants who are fortunate enough to have been in possession of apartments at the time the restriction went into force, but it has aggravated the difficulties of newcomers and of newly founded households, because apartments are almost never given up by those who hold them. There was almost no construction of homes, either by public or by private effort, during the war, and since then there has been almost no private building. In large part the municipal building program was the result, therefore, of an acute shortage in the quantity of available dwellings, a condition which private enterprise under post-war conditions seemed to be unable to remedy. But a closely related element in the decision to build houses at public expense was dissatisfaction with the quality of the available housing. The shortage was the prime reason for starting the program; its continuance, however, was primarily due to a desire to raise the standards of quality.

In 1923 the city government expanded its activities into the greatest single house building enterprise on record. Its first major program comprised 25,000 dwellings which were to be erected within five years and actually were completed in less than four. In 1927, 5,000 more dwellings were authorized; then followed a second major program of 6,000 a year. By the end of 1933 over 58,000 dwellings had been erected at a cost of over 115 million dollars and nearly one-eighth of the population of the city was housed in municipal buildings.<sup>3</sup> At this time the

<sup>2</sup> For details see Chap. IV.

<sup>3</sup> Including, in addition to those built, over 5,500 old apartments bought by the city.

city government planned to continue indefinitely building at a rapid rate, though the financial depression compelled a curtailment of the housing budget for 1933 to less than half the amount that was being spent in previous years.

The dramatic ousting of the Social Democratic city government by authority of the national government in 1934, though the actual destruction of homes which accompanied it was very small, abruptly interrupted the progress of the housing project. We have at this writing no information as to the housing plans of the new government; in any case we may be sure that the program of 1919-33 will not be continued—this story is at an end.

In Chapter I we shall discuss the supply of homes and the standards of quality which prevailed in Vienna just before the war; in Chapter III we shall describe the way in which the war and the post-war migration intensified the chronic distress into a crisis. Chapter II deals with the political changes which determined the character of the response which the government made to the emergency situation. With these background details in mind, we shall discuss in Chapters IV through VI the extent and character of the program of building houses and managing them. In general our intent in these chapters is to describe, but not to appraise; the author's judgment as to the merits of the various phases of the program are summarized in Chapter VII.

## CHAPTER I

### THE PRE-WAR HOUSING SITUATION

The housing standards of pre-war and early post-war Vienna were very low, not merely as judged by American standards but also in comparison with those of many European cities. We do not base this conclusion primarily on conditions in the dwellings that were exceptionally bad. There are, indeed, incredibly miserable slums in Vienna, as there are everywhere. In our visits we were struck especially by two very bad types, namely; big tenement houses which date from the middle of the nineteenth century, and certain seventeenth and eighteenth century houses which were once high-class homes, but have been converted into apartment buildings, and which as a result of minute subdivision, excessive age, and extreme overcrowding, have become conspicuous centers of misery. There are also, of course, many dilapidated houses which are barely fit for human habitation, and at the time the municipal building program was initiated there was a considerable number of persons living in caves dug in railway embankments, in boats, in hiding places under the bridges, and in other emergency refuges. We shall not here go into detail concerning these exceptionally bad dwellings;<sup>1</sup> our interest is rather in the living conditions of the mass of the population.

Vienna is a very compact city and its residential section consists chiefly of apartment buildings; almost the only

<sup>1</sup> The reader interested in slum conditions in Vienna is referred to the classic studies of Eugen v. Philippovich, "Wiener Wohnungsverhältnisse," *Archiv für Soziale Gesetzgebung und Statistik*, 1894, Vol. 7, pp. 215-77; also Max Winter, *Im dunkelsten Wien*, 1904 (2d ed., 1927, under the title *Höhlenbewohner in Wien*).

one-family dwellings are the villas of the wealthy in the outlying districts.<sup>2</sup> The typical residence is a four-, five-, or six-story brick structure, often with business quarters on the ground floor. The height is controlled by the city zoning ordinances. Six-story construction is permitted only in the First District, the "Inner City" (within the walls of the old fortifications), which is the principal business district.<sup>3</sup> In the Second to the Tenth Districts, which lie chiefly within a three-mile radius, five-story construction is permitted; in the outer districts four-story buildings are permitted in the more densely populated sections, while in more thinly built up areas on the edge of the city the limit is three stories.<sup>4</sup>

Within a given zone the height of the buildings is quite uniform. The fronts are generally finished in gray in a characteristic baroque style which with the uniformity of height gives the streets a somewhat monotonous, but nevertheless a pleasing, appearance. Typical residence buildings dating from the pre-war period are shown in the accompanying illustrations.

The apartments are highly standardized so that general statements have more validity than they do for most cities. What we have to say in the following section of course has to do with apartments rather than with the scattered one-family houses of the wealthy.

### I. SIZE OF DWELLINGS

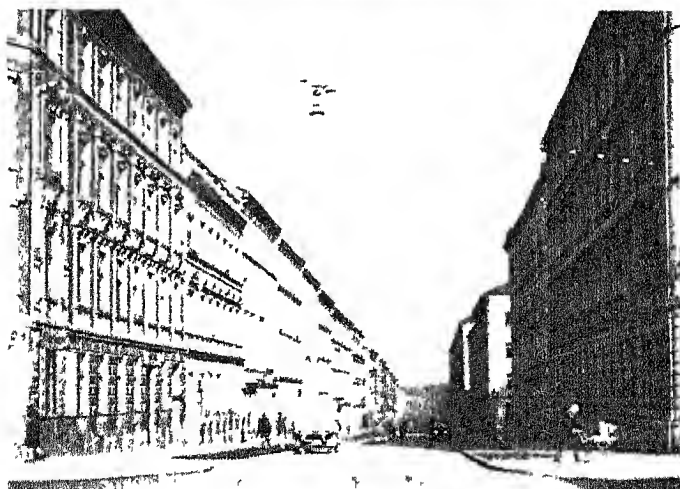
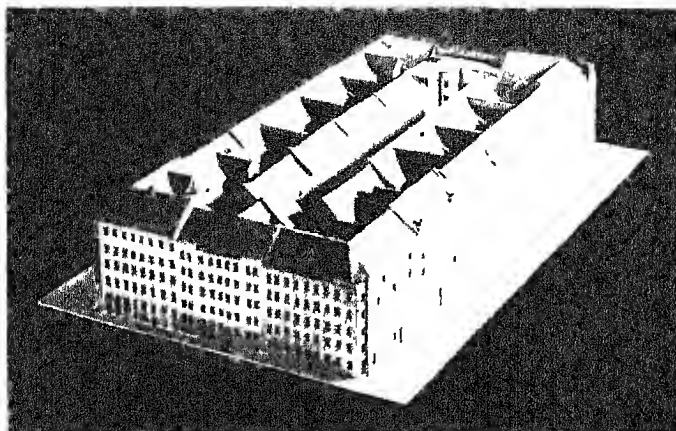
In the statistical publications of the city of Vienna the dwellings<sup>5</sup> are classified in a way which is appropriate for

<sup>2</sup> The total number of single family houses in Vienna, as shown by the census of 1910, was 5,734, or about 1.2 per cent of the total number of dwellings. (Compare Appendix A.)

<sup>3</sup> See map following p. 58.

<sup>4</sup> Philip Vas, *Die Wiener Wohnungszwangswirtschaft von 1919-1927*, 1928, pp. 78-79.

<sup>5</sup> Throughout this book the word "dwelling" refers to the space oc-



TOP TYPICAL APARTMENT HOUSE CONSTRUCTION  
OF ABOUT 1905

(Photograph from block model, by courtesy of *Gesellschafts- und Wirtschaftsmuseum in Wien*)

BOTTOM TYPICAL RESIDENCE STREET OF OLD VIENNA

(Photograph from *Die Wohnungspolitik der Gemeinde Wien*)



that city but does not correspond to the usual statistical classification of dwelling house data. Two types of dwelling rooms are distinguished, which for lack of better English terms we may designate as "living room" (*Zimmer*), and "sleeping chamber" (*Kabinett*). The classification, however, is based entirely on architectural character and not on the use to which the rooms are put. The "living room" is typically quite large, covering from 18 to 20 square meters, or about 200 square feet of floor space; it always has two or more windows, which may open either on the street or on a court. The "sleeping chamber" is a narrow room with about 10 square meters of floor space, and only one window. This window frequently opens on a narrow light shaft or on an interior hallway so that the chamber is lighted and ventilated from an adjacent room. For statistical purposes, a sleeping chamber is counted as half a room, and the kitchen is not counted at all.

The statistics recognize four size groups of residences, as follows:

- a. Small dwellings, consisting of one and one-half rooms, or less.
- b. Medium small dwellings, with two rooms or the equivalent (that is, ordinarily one living room and two sleeping chambers).
- c. Medium large dwellings, from two and one-half to three and one-half rooms.
- d. Large dwellings, with four rooms or more.

In addition, practically all dwellings, except 15 per cent of the smallest group, have kitchens with 7 or 8 square meters of floor space.

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occupied by the individual or family in the building, whereas the word "house" means a residence building, regardless of the number of individual family quarters which it may contain.

## 8 THE HOUSING PROGRAM OF VIENNA

According to the census enumeration of 1917 there were 554,545 dwellings in Vienna, of which 405,991, or 73.21 per cent, fell in the group of small dwellings as defined above.<sup>6</sup> The medium small group made up 9.35 per cent of the total; the medium large group 12.58 per cent; and the large dwellings 4.86 per cent. It will be seen, therefore, that the very small dwellings were not found merely in slums, but constituted the homes of the bulk of the population.

The small dwelling was the typical home of the laboring man and of the lower grade clerical worker. The "medium small" dwelling of two full rooms, or a room and two sleeping chambers, was the home of the less prosperous shop-keeper and the better paid clerk. The "medium large" class embraced the homes of state officials, professional workers, and the main body of business men. In the fourth group, with four full rooms or more, that is, the equivalent of a seven-room apartment in an American city, were the homes of the distinctly wealthy.<sup>7</sup>

A break-up of the group of dwellings that are classified as small throws further light on the situation. These dwellings, as they were enumerated in 1917, were grouped as follows:<sup>8</sup>

1 sleeping chamber (no kitchen) . . . . .	30,534
1 living room (no kitchen) . . . . .	10,865
1 sleeping chamber, with kitchen . . . . .	37,426
1 living room, with kitchen . . . . .	187,405

<sup>6</sup> The census of 1914 showed 540,990 dwellings, of which 72.8 per cent were classed as small; that of 1923 showed 531,632, of which 72.0 per cent were shown as small.

<sup>7</sup> Vas, pp. 45-46.

<sup>8</sup> *Die Ergebnisse der Wohnungszählung in Wien vom Jahre 1917*, Appendix, Table I. The front hall was apparently often comparable in size to the kitchen.

1 living room, 1 sleeping chamber or front hall, and kitchen .....	118,857
1 living room, 1 sleeping chamber, front hall, and kitchen .....	20,904

Thus it will be seen that no less than 239,230 dwellings, or 43 per cent of the total number in the city, consisted of no more than one good sized room and a kitchen.

## II. FLOOR SPACE OF DWELLINGS

Unfortunately our statistical information concerning the area of the dwellings erected by private enterprise is very scanty. A post-war official publication says:

The dwellings which consisted of living room and kitchen in the pre-war period had a floor space of 25 to 28 square meters; those which consisted of kitchen and sleeping chamber covered only 16 to 18 square meters.<sup>9</sup>

Support for this statement is found in a report by a city building official dated April 11, 1910, which says:

In order to get a view of the housing conditions in working class districts, I have had a number of dwellings with the number of occupants and the amount of floor space and amount of rent ascertained for eleven apartment buildings. In these dwellings the amount of floor space of a living room ranged from 19 to 21 square meters; the sleeping chambers ranged from 9.6 to 11 square meters. Kitchens were generally 2 to 2.2 meters wide and from 3 to 3.45 meters in length, giving an area of from 6 to 7.6 square meters. Thus the floor space in a dwelling which consisted of a living room and a kitchen ranged from 25.2 to 28.2 square meters, and in dwellings that consisted of a sleeping chamber and a kitchen the area ranged from 15.6 to 18 square meters.<sup>10</sup>

<sup>9</sup> *Die Wohnungspolitik der Gemeinde Wien*, p. 4. A square meter is 10.764 square feet.

<sup>10</sup> Report by Ober-Baurat H. Goldmund, *Die Wiener Wohnungsverhältnisse und Vorschläge zur Verbesserung derselben*, reprinted from *Zeitschrift des Oesterreichischen Ingenieur- und Architekten-Vereins*,

In the ground plans of typical working class houses which Goldmund published in this report, apartments with smaller areas are to be found, including:

Living room  $3.6 \times 4.5$  meters = 16.2 square meters.

Sleeping chamber  $2.27 \times 3.4$  meters = 7.72 square meters.

Kitchen  $2.9 \times 2$  meters = 5.8 square meters.

Even if the kitchens with more than 7.6 square meters were much more numerous than those with less than 6, the area of typical combinations would not work out more than:

Sleeping chamber and kitchen, 18 square meters, or 194 square feet.

Living room and kitchen, 28 square meters, or 300 square feet.

Living room, sleeping chamber, and kitchen, 38 square meters, or 410 square feet.

### III. SUNLIGHT AND AIR

The small dwellings as a whole were very unsanitary. According to the building regulations which were in force from 1883 to 1930, a building site could be utilized up to 85 per cent of its area, and even in the last years before the war it was a common practice to build up to 70 per cent.<sup>11</sup> Consequently, even for those rooms whose windows opened into the outside air there was often insufficient light and breeze, since many of these windows opened on courts the area of which might legally be no more than 12 square meters. Obviously in the lower part of the building such a room was often dark, even on clear

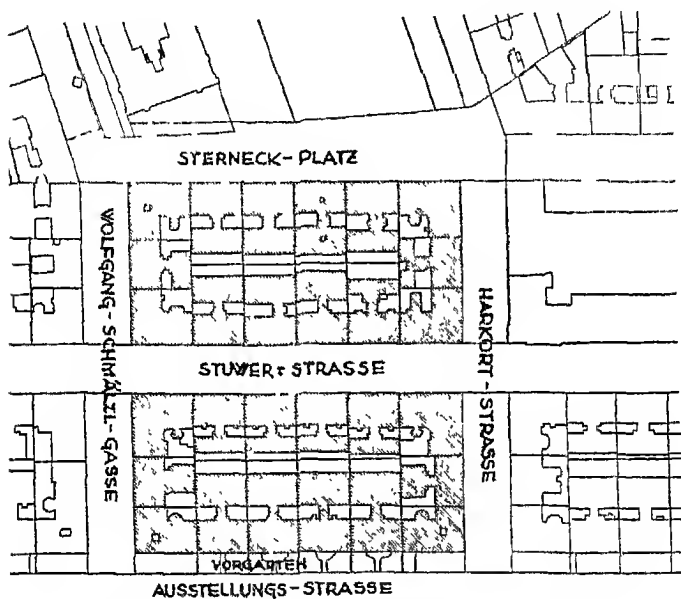
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1910, Nos. 43, 44. The ground plans of new buildings published by Rudolph Eberstadt in 1912 show somewhat smaller areas than these. (*Neue Studien über Städtebau und Wohnungswesen*, pp. 168-72.)

<sup>11</sup> Of the 1,803 buildings erected in the years from 1911 to 1913 inclusive, 796 used over 70 per cent of the available ground space, and 329 used over 80 per cent. Vas, p. 97.

days.<sup>12</sup> The accompanying ground plan, and the floor plans on pages 12 and 13, give some idea of the congestion.

Worst of all, the old "Viennese groundplan" provides for many living rooms without outside windows, even on

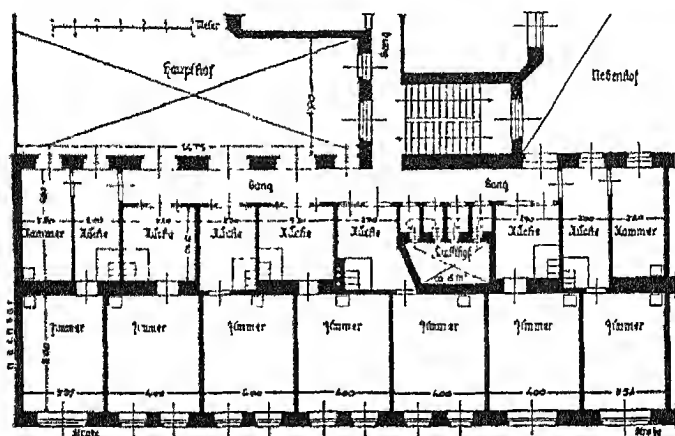


GROUND PLAN OF TWO APARTMENTS BUILT  
BETWEEN 1898 AND 1910

courts. The stairway leads to a narrow public hall which runs either along the outside wall of the building or down the center. From this hall one enters the dwelling through the kitchen. Alongside the door is the kitchen

<sup>12</sup> It must be remembered that Vienna is farther north than is any part of Maine. In inspecting one of the better grade apartment buildings—a five-story structure erected about 1910—the author noted that at 11 o'clock on a bright October morning the sunlight barely reached the court windows of the fourth floor.

"window." As the hallway often has no direct light and no direct outside ventilation, the kitchen is lighted and aired chiefly from the living room behind it. Alongside the kitchen is often a sleeping chamber whose window



FLOOR PLAN OF TYPICAL PRE-WAR SMALL DWELLINGS

Meaning of terms: *Haupthof*, main court; *Nebenhof*, side court; *Lichthof*, light court; *Gang*, hallway; *Zimmer*, living room; *Kammer*, sleeping chamber; *Küche*, kitchen; *Strasse*, street; *Nachbar*, adjacent building. Dimensions shown are in meters.

likewise opens on the hallway. The accompanying ground plans and photograph show typical layouts.

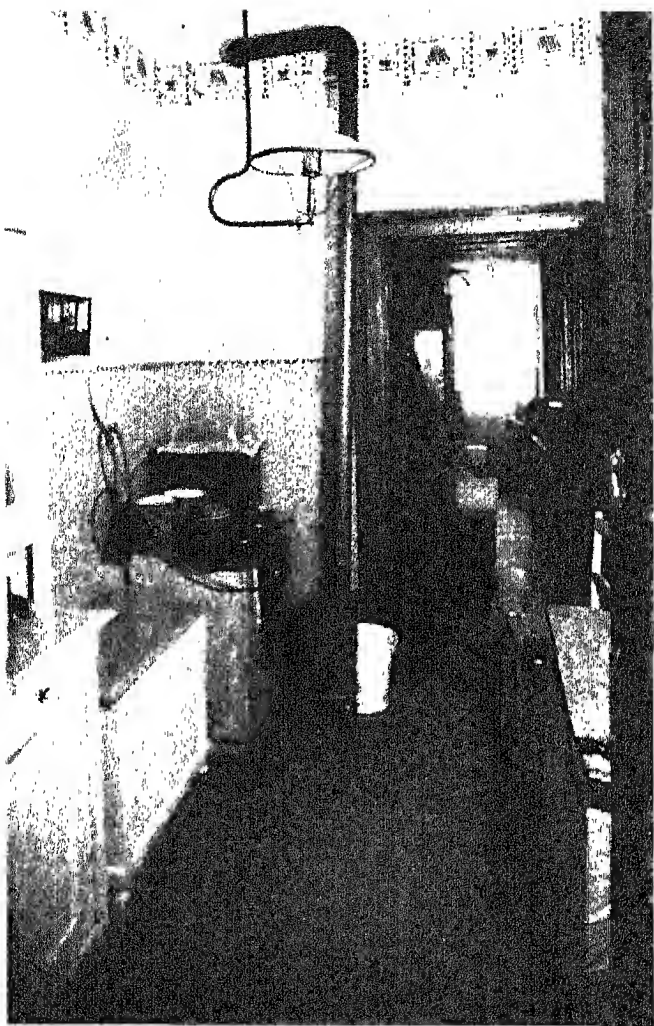
The census of 1910 distinguishes five classes of dwellings, according to the window arrangements:

1. Street dwellings.
2. Garden dwellings—without a window on the street, but with at least one on a garden or other open space.
3. Court dwellings—without a window on street or garden, but at least one window on a large court.
4. Light shaft dwellings—without a window on street, garden, or court, but with a window on a light shaft.
5. Hallway dwellings—window only on hallway, stairway, or similar arrangement.



HALLWAY IN AN APARTMENT HOUSE IN THE  
THIRD DISTRICT, BUILT IN 1859

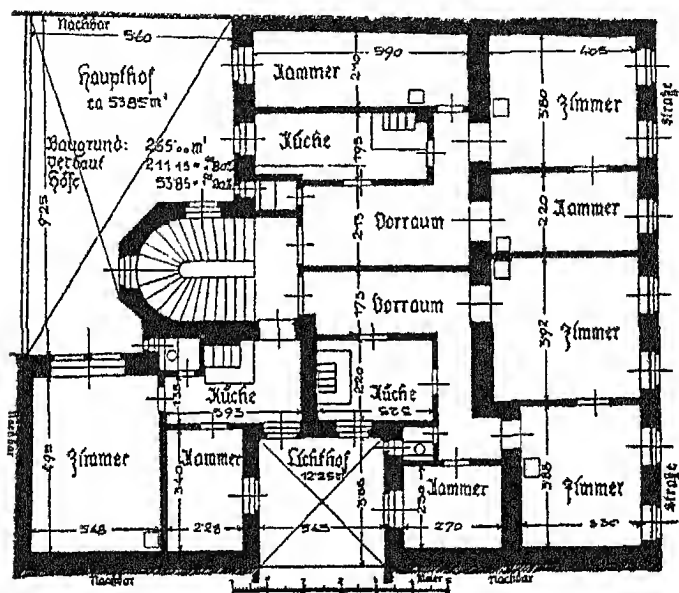
This building was condemned as unsanitary in 1931 and at the time of the author's visit was being vacated gradually in preparation for demolition. (Photograph from *Die Wohnungspolitik der Gemeinde Wien*)



SMALL DWELLING IN AN APARTMENT HOUSE  
OF PRE-WAR CONSTRUCTION

Looking from the entrance door through the indirectly lighted kitchen into the living room. The lighting effect in this picture is not normal, being controlled by the photographer's flash-lamp. (Courtesy of *Gesellschafts- und Wirtschaftsmuseum in Wien*)

Naturally the hallway dwellings have the worst light and ventilation. Those which open on light shafts are not much better. Even among the street and garden dwellings there are many in which only one window opens on



FLOOR PLAN OF PRE-WAR APARTMENT BUILDING  
SHOWING "MEDIUM LARGE" DWELLINGS

Meaning of terms: *Baugrund*, area of site; *verbaut*, space built over; *Höfe*, courtyards. (For other terms see legend under plan on the opposite page.)

a narrow alley or small garden and the other windows open on an interior passage. The table on page 14 classifies the dwellings according to window arrangements and size.

Among the one-room apartments the proportion of

light shaft and hallway dwellings was 18.4 per cent; among dwellings with two rooms it was only 2.5 per cent. This means, however, that in only 2.5 per cent of the two-room apartments did both rooms have their window openings on the light shaft, passageway, or stairway.

DWELLINGS CLASSIFIED BY SIZE AND BY LOCATION OF WINDOWS<sup>a</sup>

Number of Rooms	Outlet of Windows					
	Street	Garden	Court	Light Shaft	Hallway	Total
1. . . . .	8,092	4,321	14,761	2,856	3,255	33,285
2. . . . .	143,198	11,365	37,696	3,449	1,461	197,169
3. . . . .	89,925	7,093	22,167	1,274	132	120,891
4. . . . .	32,006	3,008	7,796	539	21	43,370
5. . . . .	22,796	1,828	2,972	130	2	27,728
6 or more	48,139	3,054	2,635	109	7	53,944
Total. . .	344,156	30,669	88,327	8,357	4,878	476,387

<sup>a</sup> Computed from *Oesterreichische Statistik*, New Series, Vol. 4, Pt. 2, p. 31.

How many rooms actually had windows only on light shaft or passage cannot be determined, but we shall not go far wrong if we assume that on the average for every dwelling at least one room intended for occupancy (living room, sleeping chamber, kitchen, or servant's room) had only such a window. Since the total number of rooms in the 476,387 dwellings was 1,534,457, of which about 150,000 were front halls and bathrooms, at least one-third of the dwelling rooms must have had windows only on light shaft or hall.

There is still more uncertainty as to the proportion of the population who slept in such rooms. At a minimum, however, it seems clear that at least 18 per cent of the inhabitants of Vienna slept in rooms which had windows only on the public hallway or on the stairway shaft or on a narrow light shaft; and among those who lived in the

small dwellings the proportion was at least 22 per cent. (Compare Appendix D.)

#### IV. MODERN CONVENIENCES

The small and medium sized dwellings were very meagerly equipped with modern conveniences. The comfort of the population of a large city depends in large measure on the extent to which dwellings are provided with such important accessories as garden space, balconies, closets, pantries, baths, toilets, gas, electricity, water, central heating, elevators, and cellar and attic space.

We have no statistical data concerning the equipment of the dwellings of pre-war Vienna with balconies, closets, pantries, and central heating, but it is well known that there were practically no pantries or closets in the smaller dwellings, and that central heating was very rare. Concerning the other modern conveniences, our information comes from two sources, the census of 1910 and a sample enumeration of 20,000 dwellings which was made in connection with the census of 1919. So far as possible the data in this chapter are drawn from the census of 1910; with respect to points not covered in that census we have relied on the sample enumeration of 1919. We have also in some cases used this sample study as a check against the 1910 census data.

*Bathrooms and toilets.* According to the census of 1910 only 7 per cent of the dwellings which were used exclusively for residence purposes had bathrooms, and in only 22 per cent was there a toilet inside the apartment. Moreover, of the dwellings with only one "living room" or none, which according to this census made up 75 per cent of the total number, only about 1,000 had bath-

rooms.<sup>13</sup> Out of 236,453 apartments of one or two rooms, only 17,263 had the toilet within the dwelling.<sup>14</sup> Running water in the kitchen was distinctly a luxury.<sup>15</sup> The toilet entrance and the water faucet were usually found in the hall outside the apartment, and served two or more families. Indeed, in every one of the 21 districts of the city, except the first, the number of toilets was less than the number of dwellings; in six densely populated districts it was less by more than 40 per cent.<sup>16</sup>

*Heat and artificial light.* There was practically no central heating; coal and coke were stored in the basement and carried up by the tenants to be burned in stoves. The usual source of artificial light was an oil lamp. Of the 20,000 dwellings which were counted in the sample enumeration of 1919, 61 per cent had neither gas nor electric light, and of those which were classified as small, 77 per cent.<sup>17</sup>

*Gardens.* The table on page 17 shows the proportion of dwellings which in 1910 were provided with some sort of garden space. It will be seen that of the dwellings that consisted of not more than three rooms, which made up more than 74 per cent of the total, only 2.4 per cent had any garden space. On the other hand, in the dwell-

<sup>13</sup> *Oesterreichische Statistik*, New Series, Vol. 4, Pt. 2, p. 51.

<sup>14</sup> The same, pp. 24\*, 25.

<sup>15</sup> Our only information concerning the water supply is derived from the sample of 20,000 dwellings which was reported in connection with the dwelling census of 1919. This showed that only 4.68 per cent of the small dwellings had a water supply within the dwelling. For the other three classes the percentages were as follows: medium small, 35.12; medium large, 69.75; large, 89.11. (*Amtsblatt der Stadt Wien*, Vol. XXX, 1921, p. 317).

<sup>16</sup> In this calculation toilets in buildings used exclusively for business purposes were not counted, but all those in buildings used partly for business and partly for residence, such as hotels, were counted.

<sup>17</sup> Since the war there has been a great extension of gas and electric service in old dwellings.

ings with more than five rooms, the proportion of gardens rose to 14.9 per cent.

However, the lack of space for garden purposes is compensated to some extent by the unusually favorable location of the city with respect to opportunities for open air recreation. The wooded hills and open spaces with marked trails for hiking are accessible by street cars from the center of the city in less than an hour's time, and the city is well provided with parks and public gardens. Per-

DWELLINGS OF SPECIFIED SIZES WITH AND WITHOUT GARDENS  
DECEMBER 31, 1910<sup>a</sup>

Number of Rooms <sup>b</sup>	With Gardens	Without Gardens	Total
1.....	557	32,728	33,285
2.....	3,699	193,470	197,169
3.....	4,185	116,706	120,891
4.....	3,041	40,329	43,370
5.....	2,487	25,241	27,728
6 or more.....	8,051	45,893	53,944
Total.....	22,020	454,367	476,387

<sup>a</sup> *Oesterreichische Statistik*, New Series, Vol. 4, Pt. 2, p. 31.

<sup>b</sup> The word "room" here means any subdivision, even a bathroom.

haps because of this factor the "*Schrebergarten*" movement, that is, the use of undeveloped suburban land for gardens, which was widespread in Germany, had only made a beginning in Vienna.

*Elevators.* We have no precise information as to the proportion of dwellings that were located in buildings with passenger elevators, but the census of 1910 showed that out of 39,268 residential buildings, only 1,213 were so equipped. Nearly one-half of these were in the First District, which contained only 1,350 of the buildings. In the districts numbered X to XXI, which had about 1,300 residential buildings of five or more stories, there were

only 28 buildings with passenger elevators.<sup>19</sup> Even these elevators were largely in those buildings which were used for business as well as residence purposes and served only the occupants of the front part of the building. Hence it is clear that the passenger elevator played no significant rôle in the Viennese standard of living.

*Storage space.* The provision made for storage of goods and of fuel was more satisfactory than was the provision for most other housing needs. The accompanying table<sup>20</sup> shows the percentage of dwellings thus provided for, as revealed by the sample enumeration of 1919.

	Basement Space	Attic Space
Small dwellings . . . . .	60.70	78.00
Medium small dwellings . . . . .	91.90	95.92
Medium large dwellings . . . . .	96.00	97.07
Large dwellings . . . . .	97.45	97.89

A large proportion of the poorest dwellings, and nearly all those of more than one room, were provided with some sort of storage space. Most apartments had space for the storage of luggage in the attic and for fuel in the basement.

#### V. OCCUPANCY

In 1910 there were housed in Vienna an average of 4.14 persons to the dwelling, or 1.29 for every room (including kitchens, bathrooms, and front halls). With this average density and considering the excessive number of very small dwellings, it is not surprising to find that many dwellings were overcrowded. If we count as overcrowded only those dwellings in which there were more than two inhabitants for every room of any kind, we find that in 1910 of 446,000 residences which were

<sup>19</sup> *Oesterreichische Statistik*, New Series, Vol. 4, Pt. 1, pp. 34, 80.

<sup>20</sup> *Amtsblatt der Stadt Wien*, Vol. XXX, 1921, p. 317.

used only for dwelling places,<sup>20</sup> 91,000, or 20 per cent, were overcrowded. Of the 335,000 dwellings with three rooms or less, 88,000, or 26 per cent, were overcrowded.

Of the 1,833,000 persons about whose dwellings we have information, 578,000, or 32 per cent, lived in dwellings that were overcrowded by the extremely conservative standard which we have set; and of the 1,307,000 inhabitants of dwellings with three rooms or less, 549,000, or 42 per cent, lived in overcrowded quarters. Among the occupants of one-room dwellings the percentage was 58.

The table on pages 20-21 shows the distribution by density of occupancy and by size of the 445,737 dwellings which in 1910 were used exclusively for residence purposes, and of the 1,832,897 persons who occupied these dwellings. The figures below the heavy line in the two sections of the table indicate respectively the number of overcrowded dwellings and the number of occupants of such dwellings in the various size and occupancy classes.

The overcrowding was made still more harmful by the fact that many households included persons not members of the family. A sub-tenant increases the overcrowding of the other rooms, while the lodger in such crowded dwellings often sleeps in the same room with persons of the opposite sex.<sup>21</sup> On December 31, 1910 there were in Vienna 93,000 sub-tenants and 75,400 lodgers. Of the 476,000 dwellings used only for residence purposes, 110,000, or 23 per cent, had either sub-tenants or lodgers. Naturally, in the very small dwellings there were more lodgers than sub-tenants.

<sup>20</sup> We have no data for the residences which were used partly for business purposes.

<sup>21</sup> As the term is used here the sub-tenant (*Aftermieter*) has a room for himself, or himself and his family, while the lodger (*Bettgeher*) does not. The lodger typically had no privilege in the home during the day, and at night he often had to share his bed with others.

DENSITY OF OCCUPANCY OF DWELLINGS OF VARIOUS SIZES, DECEMBER 31, 1910<sup>a</sup>  
I. Number of Dwellings

Occupants per Dwelling	Number of Rooms in Dwelling											Total
	1	2	3	4	5	6	7	8	9	10	11 or over	
1 . . . . .	9,916	10,440	3,372	1,794	799	379	227	86	25	10	21	27,069
2 . . . . .	11,175	43,403	14,122	6,628	3,057	1,532	1,124	403	133	46	57	81,680
3 . . . . .	5,993	44,561	20,193	8,115	4,871	2,947	2,705	1,310	468	174	187	91,524
4 . . . . .	2,875	36,986	21,072	7,536	5,104	2,981	2,805	1,737	781	351	398	82,626
5 . . . . .	1,348	25,550	17,906	5,777	4,268	2,572	2,444	1,772	843	409	544	63,433
6 . . . . .	642	15,473	13,368	3,996	2,777	1,756	1,597	1,365	794	433	612	42,813
7 . . . . .	332	8,322	8,945	2,424	1,737	1,141	932	742	567	310	593	26,045
8 . . . . .	139	3,918	5,674	1,507	1,019	587	466	400	281	179	474	14,644
9 . . . . .	66	1,658	3,222	879	579	331	271	216	118	112	358	7,810
10 . . . . .	28	688	1,604	439	284	216	160	108	80	51	190	3,848
11 . . . . .	5	217	766	230	200	110	87	60	49	33	124	1,881
12 . . . . .	—	81	331	116	93	75	57	38	23	20	91	925
13-20 . . . . .	2	58	253	148	145	129	111	95	75	54	193	1,263
21-30 . . . . .	—	—	3	4	5	6	4	12	14	14	73	135
31-50 . . . . .	—	—	—	1	2	—	1	2	1	4	18	29
51 or over . . . . .	—	—	—	—	—	—	—	2	—	—	10	12
Total . . . . .	32,521	191,355	110,831	39,594	24,940	14,762	12,991	8,348	4,252	2,200	3,943	445,737
Total over- crowded . . . . .	11,430	55,965	20,798	1,917	445	135	116	16	15	18	—	90,855

## II. Number of Occupants

1.....	9,916	10,440	3,372	1,794	799	379	227	86	25	10	21	27,069
2.....	22,350	86,806	28,244	13,256	6,114	3,064	2,248	806	266	92	114	165,360
3.....	17,979	133,683	60,579	24,345	14,613	8,841	8,115	3,930	1,404	522	561	274,572
4.....	11,500	147,944	84,288	30,144	20,416	11,924	11,220	6,948	3,124	1,404	1,592	330,504
5.....	6,740	127,750	89,530	28,885	21,340	12,860	12,220	8,860	4,215	2,045	2,720	317,165
6.....	3,852	92,838	80,208	23,976	16,662	10,536	9,582	8,190	4,764	2,598	3,672	256,878
7.....	2,324	59,254	62,615	16,968	12,159	7,987	6,524	5,194	3,969	2,170	4,151	182,315
8.....	1,112	31,344	45,392	12,056	8,152	4,696	3,728	3,200	2,248	1,432	3,792	117,152
9.....	594	14,922	28,998	7,911	5,211	2,979	2,439	1,944	1,062	1,008	3,222	70,290
10.....	280	6,880	16,040	4,390	2,840	2,160	1,600	1,080	800	510	1,900	38,480
11.....	55	2,387	8,426	2,530	2,200	1,210	957	660	539	363	1,364	20,691
12.....	—	972	3,972	1,392	1,116	900	684	456	276	240	1,092	11,100
13-20.....	26	754	3,289	2,072	2,030	1,935	1,665	1,425	1,200	864	3,088	18,348
21-30.....	—	—	63	84	105	126	84	252	322	322	1,898	3,256
31-50.....	—	—	—	31	62	—	31	62	31	124	666	1,007
51 or over.....	—	—	—	—	—	—	—	110	—	—	600	710
Total.....	76,728	714,974	515,016	169,834	113,819	69,597	61,324	43,203	24,245	13,704	30,453	1,832,897
Total over-crowded.....	44,462	336,101	168,795	18,410	5,513	2,061	1,780	424	353	446	—	578,345

\* See *Oesterreichische Statistik*, New Series, Vol. 4, Pt. 2, p. 17. The first section of the table gives the data as reported. The second section is a computation which involves assumptions as to the number of occupants of the dwellings of various sizes where 13 or more occupants were reported. The total number of dwellings with such occupancy, however, is only 1,439, or one-third of 1 per cent of the total number of dwellings, so that the error involved in these assumptions is negligible.

We noted above that of all the dwellings that were used only for residential purposes, 20 per cent were overcrowded; of these homes in which sub-tenants or lodgers were domiciled, 29 per cent were overcrowded. In all the classifications by size of dwelling the proportion of overcrowded dwellings was much greater where there were sub-tenants and lodgers than in the dwellings inhabited only by members of the same family. For all dwellings with three rooms or less, the proportion of overcrowded dwellings was 36 per cent where there were sub-tenants or lodgers, and 23 per cent where there were none.

#### VI. THE HOUSING SUPPLY

The overcrowding was not entirely due to the smallness of the typical dwelling; it was also a result of the fact that apartments were chronically scarce. The condition of the housing market is best estimated by the proportion of vacancies to occupied dwellings. When vacancies are excessive the building activity slackens. When there are few or no vacancies, the tenant is at the mercy of the landlord, monopoly rents are exacted, and living conditions deteriorate. Under normal conditions in any large city a vacancy ratio of 3 per cent is considered normal, but in Vienna the proportion of vacancies seems not to have approached that figure for some years before the war.

According to the enumeration of May 20, 1914, out of a total of 540,990 dwellings, only 7,516, or 1.39 per cent, were empty, and of these empty dwellings 4,002 were middle sized or large dwellings and hence were not accessible to the mass of the population. Moreover, among these vacancies there were 556 summer residences which were not part of the available housing supply. If we subtract these from the vacancies, the ratio drops to 1.29 per cent. Of the 393,803 small dwellings (that is

not more than full room, sleeping chamber, and kitchen), only 3,514, or 0.89 per cent, stood empty. In five typical workers' districts, with 126,869 small dwellings, only 498, or 0.39 per cent, stood empty.<sup>22</sup>

Such a shortage meant, of course, that the tenant was at a great disadvantage in bargaining with the landlord. Coupled with the fact that there were no restrictions on the right of the landlord to terminate the contract and evict a tenant, the shortage meant that those who were deemed less desirable tenants, whether because of personal traits or because they had large families, were in constant danger of eviction. It is stated that the annual number of legal evictions, most of them on 14 days' notice, amounted to one-fourth the total number of dwellings in the city.<sup>23</sup>

The municipal shelter for the homeless in 1910 received 64,222 persons, including 7,058 children; in 1912, 96,878 including 20,071 children. The Association of Private Refuges reported that it took care of 461,472 people in 1913, including 29,915 children.

#### VII. OWNERSHIP AND FINANCING

The apartment houses of Vienna were typically owned, not by large corporations, but by private individuals or groups of individuals who owned undivided interests in them. The purchase of such buildings, and of mortgages secured by them, was a very popular means of saving.

The rents were fairly low in terms of the income of the mass of the population. The only complete data concern-

<sup>22</sup> Computed from "*Die Wohnungszählung in Wien vom 20. Mai 1914*," p. 134, and *Die Ergebnisse der Wohnungszählung in Wien*, January 1917, Appendix, Tables VII-VIII.

<sup>23</sup> Heinrich Rauchberg, "Ziele und Wege der Wohnungsreform in Oesterreich," *Zentralstelle für Wohnungsreform in Oesterreich*, 1907, p. 7.

ing rents which we have are drawn from the census of 1900.<sup>24</sup> A classification drawn from this census is shown in the accompanying table. The rents do not include fuel.

The average rental of the laboring class family in 1914 is said to have been 366 crowns a year—about \$75.00—

DWELLINGS IN VIENNA CLASSIFIED ACCORDING TO RENTAL VALUES\*

Yearly Rental (In crowns)	Number of Dwellings	
	Used Exclusively as Such	Used Partly for Business Purposes
0-200	35,968	1,033
200-320	98,765	3,993
320-400	43,989	4,642
400-600	53,999	12,836
600-800	20,110	8,024
800-1,000	12,251	4,908
1,000-1,600	12,935	6,489
Over 1,600	8,437	5,512
Unknown	7,832	1,528
No rent	24,953	2,027
Total.	319,239	50,992

\* Data from the Census of 1900 reprinted in Emil Lederer, "Ein Vorschlag zur Reform der Gebäudesteuer," *Zeitschrift für Volkswirtschaft, Sozialpolitik und Verwaltung*, 1909, Vol. 18, p. 263.

to be paid out of an average income of about 2,500 crowns, or something over \$500.00.<sup>25</sup> The proportion of rent to income was thus around 15 per cent.<sup>26</sup> This is not an unusually high ratio; in other words, the working class family did not pay more for housing than did workers in more favorably situated communities; rather they got along with poorer housing accommodations.

<sup>24</sup> We have noted a number of cases among the old houses owned by the city where the recorded 1914 rental, divided by the number of apartments, works out as low as 300 crowns, a few below 250.

<sup>25</sup> *Via*, p. 8, citing a 1916 publication of the Ministry of Commerce.

<sup>26</sup> In the index of the cost of living computed by the Austrian Federal Statistical office rent is figured at 12.4 per cent, as of July 1914. (*Wirtschaftstatistisches Jahrbuch*, published by *Kammer für Arbeiter und Angestellte*, Vienna, 1931, p. 412.)

## CHAPTER II

### THE POLITICAL BACKGROUND

The character of Vienna's post-war housing program was greatly influenced by two major political changes which resulted from the war, namely; the establishment of a democratic government upon the ruins of the Hapsburg Monarchy and, partly as a consequence of this, the perpetuation of the war-time rent restrictions. The revolution gave the city of Vienna an unprecedented amount of constitutional independence while the abolition of pre-war suffrage qualifications brought into power new leaders, and gave controlling influence to new ideals. And at the same time that the political power of the old house-owning class was broken by the democratic revolution, their economic power was destroyed by the rent restrictions. Our task in this chapter is to survey these political changes.

#### I. THE CONSTITUTIONAL STATUS OF VIENNA

On October 30, 1918 a provisional national assembly for German Austria met to make a constitution. On November 12 the Republic was proclaimed. On the same day a suffrage law was enacted which provided that in city elections all adult citizens should have equal voting rights without distinction of sex. Proportional representation of parties was established, and a secret ballot.

The provision for *equal* suffrage is important. Ever since the establishment of self-government in the city, after the Revolution of 1848, there had been a peculiar system of electoral classification which gave grossly unequal weight to the votes cast by different individuals.

Before 1900 there were three electoral colleges, each of which selected the same number of representatives to the City Council. The right to vote in these colleges was obtained in a variety of ways, but chiefly through the payment of substantial amounts of taxes, through educational and professional qualifications, through the holding of public office, or through service as an army officer. In 1891 the number of electors in the first college, which was chosen on the basis of a high property qualification, was 5,409. The second college, which was dominated by the intellectual and professional group, numbered 22,236. A third college, where the qualification was a relatively low tax liability, numbered 51,570. The number of adult male inhabitants of the city at this time was over 343,000.

In 1900 a fourth college was created, in which all the male residents of the city over 23 years of age, including even the voters in the other colleges, were given a vote. The fourth college, however, was entitled to elect only one city councillor from each of the 20 (later 21) districts, while the other three colleges chose a total of 46 members each.

Under the terms of the law of November 12, 1918, a provisional city government was organized by adding representatives of labor to the existing City Council. On March 12, 1919 the provisional Council passed an ordinance which extended the suffrage to all Austrian citizens over 20 years of age who were residents of Vienna on election day.

The succeeding elections brought the Social Democratic party into power for the first time, with 100 out of 165 votes in the Town Council, and on May 22, 1919, Jakob Reumann was elected mayor by the new Council. There followed a complete reorganization of the city

government, which effectively consolidated the control of the majority party. Eight executive committees were established, each in charge of a division of the administration, and each with a permanent chairman, chosen from the majority party, who was to be the chief executive officer of his department. The three departments which were directly concerned with the housing program, namely, finance, housing, and public welfare, were entrusted respectively to Hugo Breitner, Anton Weber, and Professor Julius Tandler. All three were men of superior energy and ability, and all three served continuously throughout the period covered by this study.

As the constitution then stood, the city of Vienna was part of the province of Lower Austria. Its ordinances were subject to veto by the provincial legislature and its taxing powers were very limited. This relationship, which came over from pre-war days, was unsatisfactory to both sides. The city, which had two-sevenths of the population of the entire country, wished to be independent of the provincial government. On the other hand, the rural part of Lower Austria, because of the strength of the Social Democratic party of Vienna, preferred to be separated from the city. The position of the Christian Socialist party was that "the red city must be isolated."<sup>1</sup>

The basis for a separation was laid in a federal law of October 1, 1920 which declared Austria to be a federal state composed of independent provinces. Lower Austria was enumerated as one of these provinces, but was divided into two parts, Vienna and Rural Lower Austria. In many respects, including the choice of members of the Federal Council, these units were given the status of independent provinces. Moreover, it was specifically provided that Vienna might become an independent province

<sup>1</sup> Eduard Jehley, *Zehn Jahre rotes Wien*, p. 8.

by concurrent legislation of the Vienna City Council and the legislature of Rural Lower Austria. The action thus foreshadowed was quickly taken. By mutual agreement, Vienna and Lower Austria became separate provinces of the federation as of January 1, 1922, though Vienna continued to be the capital of Lower Austria.

Thus a constitutional situation was created which made it possible for Vienna to determine its own policies with a far greater degree of independence than any municipal government in Austria had ever previously enjoyed. For as a consequence of the separation from Lower Austria the city could now legislate without the necessity of ratification by the provincial assembly; it could levy both city and provincial taxes; and it shared both as a city and as a province in the federal government's distribution of funds.

Undoubtedly, the majority party in Lower Austria thought it had driven a good bargain from the financial standpoint. In 1921 the city of Vienna, cut off from its natural trade area by new boundaries and shorn of its extensive political functions by the dismemberment of Austria, appeared to be in a state of hopeless economic collapse, and in dire need of outside support until a large part of its population could find a place to which to migrate. It turned out otherwise, however.

## II. POLITICAL PARTIES

The post-war political alignments of Austria, until very recently, were more like those of England than those of most continental countries. The political system was genuinely democratic in the sense that political authorities got and retained their power, not through force, but through an appeal to a broad electorate. The two-party system was in vogue. During most of the

period from 1918 to 1934 responsibility was divided, the Christian Socialists controlling the national government with a strong Social Democratic minority, and the Social Democrats controlling the city government of Vienna with a rather weak Christian Socialist minority. Neither communism nor fascism played an important rôle before 1933, nor was there visible any such tendency as showed itself in Germany, for instance, for the young people as they came to voting age to forsake the traditional parties and gravitate to the extreme left or extreme right. To be sure, the two-party system finally collapsed, but only under the strain of prolonged economic depression and financial instability, accentuated by increasingly severe trade restrictions and political pressure on the part of Austria's neighbors.

The Christian Socialist party of Austria is chiefly an amalgamation of two quite diverse elements—the farmers and the upper middle-class of the cities. The party came into power in Vienna in 1897 over the ruins of the Liberal party which had controlled the city for more than 40 years. This latter party was the typical Liberal party of nineteenth century Europe, born of the struggle for liberation of the community from the domination of nobility and church, and committed to the largest degree of individual freedom—freedom of worship, of speech, and of economic opportunity; freedom, that is, from formal legal restraint in the choice of one's occupation. As in other countries, this Liberal party fell short of being liberal in the twentieth century sense; it tended to substitute the nineteenth century aristocracy of wealth for the eighteenth century aristocrats of birth and sacred calling. The Liberal party as it developed in Vienna differed from that of other European countries chiefly in the extent to which it perpetuated the tradition of the

dominance of the house-owners which was so conspicuous in the beginnings of the history of European city states.

More and more as the century progressed, however, the Liberal party had come to be the party of big business, for the *laissez faire* tradition in Vienna, as elsewhere, came more and more to mean the consolidation of businesses into powerful corporations and the elimination of petty independent workmen and traders. It was the task of Karl Lueger to weld together the elements of opposition to this form of liberalism, to create a party which represented the reaction of the small business man and the farmer against big business, and of Catholic piety against intellectual and moral liberalism and against Judaism. The new party came into power in 1897 and held control continuously till the Revolution of 1918. At the peak of its power, in 1910, it controlled 143 out of 165 seats in the City Council. The representation of the old Liberal party had fallen to 15, and these were all chosen by the first electoral college, which only embraced one-fifteenth of the voters but chose 46 of the Council members.

In the meantime the Social Democratic party in Vienna, as in other European cities, was growing steadily, though the complicated electoral system made it impossible for it to obtain representation in the municipal government in anything remotely approaching its numerical strength. The creation, in 1900, of the fourth electoral college, in which, as was noted above,<sup>2</sup> the rule was manhood suffrage, first made it possible for them to obtain any representation at all. In 1900 the party elected 2 of the 20 representatives to the fourth electoral

<sup>2</sup> P. 26.

college; in 1906, 7 out of 21; in 1912, 8 out of 21, together with one representative out of the 46 elected by the third college. The number of votes cast for the different parties is shown only in connection with elections of the National Assembly. In 1907, 38.8 per cent of the votes cast in Vienna in the national elections were Social Democratic, as against 49.3 per cent Christian Socialist; in 1911 the Social Democratic party cast 46.2 per cent of the votes, and the Christian Socialist 41.8.

Less and less was significant opposition to the Christian Socialist party to be found in the remnants of the old Liberal party; more and more the shadow of Social Democracy fell across the pathway. Just as the Christian Socialist party had voiced discontent with a liberalism which was liberal only by the standards of a previous generation, so the Social Democratic party came to voice discontent with the growing conservatism of the Christian Socialists. And, as the character of the opposition changed, the character of the Christian Socialist party itself also changed. Just as the Liberal party itself had grown conservative with the disappearance of the issues of 1848, the Christian Socialist party now drew to itself defenders of all that was good and all that was bad in the existing order. At first bitterly anti-Semitic, it came to be the party of the Jewish bankers. At first, at least in words, the antagonist of the vested interest of the house-owners, it refused again and again to modify an extraordinarily defective housing code in the direction of greater protection for health and comfort to tenants. And the house-owning group continued as under the Liberal government to furnish an amazingly high, though a declining, proportion of the membership of the City Council.<sup>3</sup>

<sup>3</sup> See below, pp. 39-41.

Because the Social Democratic party of Vienna never had any political power before the war, it must be described chiefly in terms of its post-war character. Superficially its rise is a part of the growth of the international socialist movement which was going on everywhere.<sup>4</sup> In words indeed, the Social Democratic party of Vienna is committed to the fundamental tenets of socialism as completely as is the government of Soviet Russia. Its literature abounds with Marxian catchwords, and it has endeavored to perpetuate the memory of Karl Marx, Friedrich Lassalle, and Jean Jaurès in the names given to the enormous apartment buildings which it has built.

Nevertheless, whether from conviction or from necessity, the Social Democratic party of Vienna, during its 15-year term of office, never did commit itself to a genuinely socialistic program. Aside from a strong anti-clerical bent, it was what we would call a Progressive party, a little more radical than the British Labor party. Its leadership was drawn from an extremely able intellectual group, in large part Jewish. Except as an incident of its program of relief and social betterment, it did not attempt to socialize industry.<sup>5</sup> It partly accepted the capitalistic system as the foundation of its program, exploited capitalism by highly progressive rent taxes and heavy taxation of luxuries, and endeavored to equalize the real incomes of the people through the provision of parks and playgrounds, bathing beaches, dental clinics, a higher standard of living for the inmates of relief institutions; most of all by providing virtually free housing for an increasing proportion of the population. But this is not socialism.

<sup>4</sup> Compare Lewis L. Lorwin, *Labor and Internationalism*, 1929.

<sup>5</sup> A chain of low-priced restaurants is the chief municipal business enterprise, aside from those directly associated with house building.

## III. INFLATION

In Austria, as in all the warring countries, the gold standard was abandoned at an early stage of hostilities and the war was financed to a considerable extent by currency inflation. At the close of the war the crown was quoted at less than half its pre-war value. This was only a foretaste, however; the real inflation came during the next four years. From the end of the war until late in 1922 the national government operated at continuously increasing deficits, and these deficits could not be covered by borrowing from investors, either at home or abroad. Consequently resort was had, as in many other countries, to uncovered advances of notes from the national bank. The note issue, which by the beginning of 1918 amounted to 4,500 million crowns, rose to 12,000 million at the end of 1919, to 30,000 million by the end of 1920, to 174,000 million at the end of 1921, to over 400,000,000 million at the end of 1922. The rise of the exchange rate is shown in the accompanying table, in crowns per dollar.

Pre-war parity	4.935
October 1918	11.830
Dec. 31, 1919	155.000
Dec. 31, 1920	659.000
Dec. 31, 1921	5,275.000
Dec. 31, 1922	70,025.000

The peak figure, which was reached at the end of August 1922, was 78,167; from that time the crown reacted slowly and was finally stabilized at 70,760, or a net depreciation to about 1/140 of 1 per cent of the pre-war exchange rate. Prices advanced more slowly but by 1923 were ranging at a level of from 11,000 to 14,500 times their pre-war figures.<sup>6</sup>

<sup>6</sup> J. De Bordes, *The Austrian Crown*, John V. Van Sickle, *Direct Taxation in Austria*, 1931, Chaps. III to V.

As in other countries where violent inflations took place, holders of fixed obligations, including urban mortgages and savings bank deposits, were completely expropriated. Hence until after the stabilization, the financing of urban construction by the usual pre-war method was wholly impossible, and even after the stabilization the recollection of the unfortunate experience operated as a permanent deterrent to financing through fixed obligations.<sup>7</sup>

#### IV. RENT RESTRICTION

As the inflationary and currency policies of the government reflected themselves in advancing prices, a demand arose for measures to protect the consuming public against "profiteering"; and of these measures by far the most important was the control of rents. It was believed that the general price increases caused by war financing would be temporary, but that if rents were allowed to go up with other prices they would not come down with other prices.

The first Austrian measure dealing with rents was an imperial order issued in January 1917 which empowered the authorities to apply measures for the protection of tenants in districts where there had been a marked rise in the level of rents. This measure did not apply to the so-called large dwellings.<sup>8</sup> About a year later a second order was issued which brought large dwellings within the scope of the restriction. In the case of smaller dwellings a definite figure was fixed beyond which rents might not be increased, while for large dwellings it was decreed simply that the increases must be reasonable. A third order was issued in October 1918, and in 1922 a

<sup>7</sup> Another minor deterrent was a capital levy, decreed in 1920.

<sup>8</sup> As was noted in Chap. I, these made up, so far as Vienna was concerned, less than 5 per cent of the total number.

permanent rent restriction was put into effect. The orders of 1918, however, embodied the essential features of the later more formal control. In the case of all but the largest dwellings no increases were permitted except those necessary to cover changes in the cost of upkeep, taxes, and interest rates. In the case of larger dwellings (in Vienna those with a pre-war annual rental exceeding 3,000 crowns, or about \$600 per year) there was slightly more elasticity.

All existing leases were prolonged indefinitely; the landlord was not allowed to terminate the contract except on a few very definite grounds, such as failure to pay rent, refusal of the tenant to accept an increase in rent which was permitted under the law, persistent disorderly behavior, sub-letting at an excessively high rent, or the fact that the landlord needed the dwelling for himself, his relatives, or his employees.

The Rent Restriction Act of December 7, 1922 established rents on the following basis:

a. The landlord was allowed a basic rent, amounting to half the rent paid on August 1, 1914. This, however, was paid in paper crowns and because of the enormous depreciation of the crown, amounted to practically nothing. Three thousand crowns per annum was equivalent in 1914 to about \$600; after the depreciation of the crown and the ensuing stabilization, it was equivalent to about 4 cents.

b. The maintenance charge payable in paper crowns was fixed at a nominal figure of 150 times the pre-war rent—the equivalent of about 1 per cent of the pre-war rent. This was to cover repairs and labor of management.

c. There was a variable charge to cover the routine costs of operation such as lighting, chimney cleaning, insurance and taxes.

d. The tenant had to pay the rent tax.

The accompanying table shows the way in which the progress of the inflation, combined with the rent re-

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striction, gradually eliminated rent from the cost of living of those inhabitants of Vienna who were fortunate enough to be in possession of apartments.

EFFECT OF INFLATION AND RENT RESTRICTION ON RENT IN VIENNA\*  
(Data in crowns except as noted)

Year and Quarter	Rent	Cost of Cleaning	Tax	Expense of Upkeep	Total Expenditure on Rent	
					In Crowns	In Dollar Equivalent
1914.....	250	5	—	—	255	46.96
1919.....	300	6	—	—	306	5.43
1920, I, II.....	350	7	—	—	357	1.74
III, IV.....	375	7.5	37.50	—	420	1.16
1921, I.....	400	7.5	60	—	467.5	.68
II.....	500	105	75	—	680	1.03
III.....	750	105	225	—	1,080	.71
IV.....	1,250	105	625	—	1,980	.33
1922, I.....	2,250	315	2,475	—	5,040	.71
II.....	2,750	315	2,810	—	5,875	.46
III.....	6,250	1,000	2,810	—	10,060	.16
IV.....	37,500 <sup>b</sup>	2,000	2,810	—	42,310	.59
1923, I, II.....	37,625 <sup>c</sup>	12,000	10,980	25,000	85,605	1.21
III.....	37,625	18,000	10,980	62,500	129,105	1.82

\* International Labour Office, *European Housing Problems Since the War*, 1924, p. 371, except last column which is computed from data in Commission of Gold and Silver Inquiry, U. S. Senate, *European Currency and Finance*, Vol. II, pp. 293-94. The basic rent presented here is the pre-war rate of 250 crowns per quarter for a dwelling consisting of two living rooms, a sleeping chamber, a hall, and a kitchen.

<sup>b</sup> Maintenance rent.

<sup>c</sup> Maintenance rent 37,500, plus basic rent 125.

An amendment to the Rent Restriction Law which was passed in June 1929 abolished the distinction between the ground rent and the maintenance charge, and put all rents on the basis of a fixed percentage of the 1914 rate. The new rental rates for dwellings in Vienna are as follows<sup>a</sup> (in groschen per crown of pre-war rent):

<sup>a</sup> L. Neumann, *Das Wohnungswesen in Oesterreich*, p. 110.

	1,000 crowns or less (1914)	More than 1,000 crowns (1914)
Aug. 1, 1929 to July 31, 1930 . . . . .	20	23
Aug. 1, 1930 to July 31, 1931 . . . . .	24	27
After July 31, 1931 . . . . .	27	30

This means that since August 1, 1931 the tenant of an apartment which rented before the war for 1,000 crowns or less (the usual working man's rent was from 300 to 500 crowns) has paid 18 per cent of his pre-war rental, while the tenant of a more expensive apartment has paid about 21 per cent of the pre-war rent.

In addition the tenant must pay certain costs of operation, including water and sewer taxes, cleaning chimneys and sewers, removal of waste, a proportion of the cost of lighting the halls and stairways, the cost of fire and liability insurance, the pay of the caretaker, and the costs of any new expenditures required by public authority in connection with the water supply and the sewage system. Finally, the tenant must pay all taxes except such as by law are specifically made the sole obligation of the landlord, such as the tax on the increase of the land value.

Obviously the virtual elimination of rent from the tenants' budget must have had a very important bearing on the demand for housing quarters. The inflation and the rent restriction affected both the supply of housing and the demand for it. To be sure the restriction did not apply to newly erected buildings. It did, however, have a bearing on the amount of risk that was likely to be imputed to investment in housing. Just as the inflation destroyed confidence in bonds and mortgages for years to come, so the rent restriction necessarily de-

stroyed confidence in housing as a means of saving and investment. Moreover in a country where most wages are fixed by collective bargaining the cost of living is a direct determinant of wages. The rent restriction held down money wages to a level so low that it was impossible to collect rents that would make new building profitable.

Finally the restriction tended to freeze the existing occupancy arrangements of the community. Every tenant became the owner of an equity in his apartment, but an equity which he was forbidden to sell and could best protect by continuing to occupy the apartment. Consequently thousands of individuals continued to occupy their apartments after they would normally have given them up because of the death of a husband or a wife, or because of a decrease in their incomes. Statistically, it is impossible to measure the importance of this factor, but we know that nobody gave up an apartment who could avoid doing so. Under these conditions it is not strange that it was almost impossible for home-seekers<sup>10</sup> to find old homes vacant.

Nominally the Christian Socialists opposed, and the Social Democrats supported, rent restriction. This alignment was not unnatural in view of the extent to which the Christian Socialist party drew its strength from the rural districts where the ownership of homes was widely diffused. Nevertheless, rent restriction was maintained by the authority of the national, and not the municipal, government. The Christian Socialist party always contained a strong element which favored rent restriction, the preference probably arising in part from the fact that even a Christian Socialist tenant enjoyed the benefit of rent restriction, but also in part from the widespread be-

<sup>10</sup> Compare below, pp. 44-48.

lief of employers that rent restriction made possible the payment of lower nominal wages and therefore was a help in meeting foreign competition. The friends of rent restriction among the Christian Socialists in the national legislature were always numerous enough, in conjunction with the Social Democrats, to keep rent restriction firmly entrenched in the law of the land. The secretary of one of the house owners' political unions remarked to us, "The monk is no better than the Jew."

#### V. PRE-WAR POSITION OF THE HOUSE OWNER

Austria has maintained her war-time rent restrictions with less modification than has any other of the former warring nations. In part the tenacity with which both political parties have clung to the restriction is to be explained by the fact that the pre-war economic system collapsed more completely in Austria than elsewhere. But in large part it must find an explanation in the longstanding antagonism of tenants toward landlords, which was fostered by the whole pre-war organization of the housing market. Before the war the tenant—and nearly every one was a tenant—had almost no rights, not even the right to a key to his dwelling. There were no leases; the tenant could be ousted at the pleasure of the landlord. The number of vacant dwellings was always very small; hence the landlord took little risk in exercising his right of eviction while the tenant was put to a correspondingly great inconvenience to find a new location.<sup>11</sup> The building code, moreover, was so drawn as to give the builder the maximum freedom and the future tenant the minimum protection.<sup>12</sup>

Thus the political situation in post-war Vienna was

<sup>11</sup> Compare p. 23.

<sup>12</sup> Compare Appendix B.

colored by a long tradition of hostility between landlords and tenants. At the same time, under both the Liberal and the Christian Socialist parties, the landlords exercised a political influence that was all out of proportion to their numbers. The following table shows for five-year intervals the proportion which landlords made up of the total membership in the Town Council.

NUMBER OF LAND-OWNERS IN THE TOWN COUNCIL, AT FIVE-YEAR INTERVALS, 1865-1914\*

Date	Town Council		Date	Town Council	
	Number of Members	Number of House Owners		Number of Members	Number of House Owners
Sept. 1, 1865. . . .	116	56	Nov. 15, 1895. . .	137	72
Oct. 31, 1870. . .	119	56	Nov. 15, 1900. . .	151	83
Sept. 30, 1875. . .	120	63	Nov. 15, 1905. . .	155	86
Oct. 31, 1880. . . .	117	69	Dec. 1, 1910. . . .	161	74
Oct. 31, 1885. . . .	115	65	Dec. 1, 1914. . .	162	69
Oct. 31, 1890. . . .	118	68			

\* Statistics of the extent of house ownership among members of the Town Council have been published by the statistical office of the city of Vienna. See *Statistik der Wahlen für den Gemeinderath 1861 bis 1880*, p. 35; *Statistisches Jahrbuch der Stadt Wien*, 1895, p. 92; 1900, pp. 107-08; 1905, pp. 120-21; 1910, p. 126; 1914, p. 123. The data there given, however, are incomplete, particularly for the years after 1890. We have therefore compiled data from the *Wiener Kommunal Kalender* and the annual administrative reports of the city. See *Wiener Kommunal-Kalender und Städtisches Jahrbuch*, 1866, pp. 76-79; 1871, pp. 96-100; 1876, pp. 224-29; 1881, pp. 170-78; 1886, pp. 190-98; 1891, pp. 92-100; 1896, pp. 67-75; 1901, pp. 144-53, 159; 1906, pp. 139-48, 154; 1911, pp. 170-79; 1915, pp. 202-12; *Die Gemeinde-Verwaltung in den Jahren 1867-1870*, pp. 62-66; the same, 1871-73, pp. 58-62; 1874-76, pp. 66-71; 1880-1882, pp. 151-55; *Verwaltungsbericht der Stadt Wien*, 1883, pp. 10-11; 1884, pp. 10-11; 1885, pp. 14-15; *Die Gemeinde Verwaltung der Stadt Wien in den Jahren 1889-1893*, pp. 40-48; the same, 1894-96, pp. 16-23; 1900, pp. 15-18; 1905, pp. 12-13; 1910, p. 12.

If housing had not been a political issue in Vienna, the high proportion of house owners would have been a matter of little consequence. But the constant pressure of bad housing conditions and the repeated failure of attempts to correct them through amendment of the

building codes<sup>13</sup> led the disfranchised working population to nourish a long-time grievance against the house owners. The introduction of equal suffrage threw the control of both parties into hands where the vested interests of housing property had no hope for tender consideration. There is no question that the tradition of political antagonism between the landlord and tenant classes played a major part in making Austrian rent restrictions more drastic and keeping them in force longer than were those in other countries which shared with Austria the inflation experience.

<sup>13</sup> Compare pp. 132-35.

## CHAPTER III

### THE HOUSING SITUATION JUST AFTER THE WAR

To understand the situation which led to the initiation of the municipal building program we must acquaint ourselves with the early post-war situation. We shall consider first the quantity and quality of dwellings that were available; and second, the changes that had taken place in the amount and character of the demand for dwellings.

#### I. QUANTITY AND QUALITY OF DWELLINGS

From the beginning of the war until the end of 1923 there was very little building activity. The accompanying table shows the number of dwellings built and the number torn down for the period from the end of 1910

CONSTRUCTION AND DEMOLITION OF DWELLINGS IN VIENNA, 1911-23<sup>a</sup>

Year	Dwellings Built	Dwellings Razed	Net Increase
1911.....	11,114	2,660	8,454
1912.....	14,050	2,319	11,731
1913.....	13,988	860	13,128
1914.....	9,586	920	8,666
1915.....	4,794	68	4,726
1916.....	962	127	835
1917.....	342	28	314
1918.....	85	49	36
1919.....	124	15	109
1920.....	376	27	349
1921.....	245	9	236
1922.....	873	34	839
1923 <sup>b</sup> .....	715	110	605

<sup>a</sup> *Statistisches Jahrbuch der Stadt Wien*, 1914, pp. 11-12; *Beiträge zur Statistik*, 1924 (mimeographed) No. 20, pp. 2-3; International Labour Office, *European Housing Problems Since the War*, 1924, p. 358.

<sup>b</sup> First half of year.

to the middle of 1923. The net increase from the beginning of the war to the end of 1918 was 10,374. For 1919-23 it was only 2,624, and most of this small increase was due to municipal building.

In addition a number of dwellings, the use of which had been prohibited for reasons of public health, were reoccupied. But at the same time many dwellings were diverted into office and similar uses. Hence we may safely say that the amount of space actually available for dwelling purposes did not increase from the beginning of the war until 1923.<sup>1</sup>

With regard to the quality of dwellings the situation was not fundamentally changed by the war. The description of the size and typical layout of Viennese dwellings which we have given in Chapter I applies with only slight modification to the post-war period, because in general the buildings were the same buildings. There had been, however, much deterioration of physical condition during the course of the war.

In the pre-war period some of the worst old buildings were constantly being demolished, and apartments in the buildings which replaced them were better than the average, simply because they were new. But during the war, as we have seen, the destruction of old buildings and the erection of new ones became very infrequent. The old bad dwellings became older and worse, and the newer and better ones received inadequate repairs. Moreover, whereas in the pre-war period bad dwellings had been closed from time to time by the health administration, during the war the health officers shut their eyes

<sup>1</sup> Support for this estimate may be derived from the fact that at the census of vacant dwellings of May 20, 1914 a total of 540,990 dwellings was counted, while in the population census of Mar. 7, 1923 only 531,632 dwellings were found. The data are not fully comparable.

to everything until finally, on March 18, 1918, a ministerial order was issued that quarters which according to the existing regulations were not fit for habitancy might under certain conditions remain in use.

The average condition was also lowered by the increase in the utilization of living quarters that were below even the normal standard of the community—such as the caves, boats, refuges under bridges, and shacks that had been erected to store tools and seed by “Schreber gardeners.”<sup>2</sup>

## II. THE DEVELOPMENT OF THE HOUSING SHORTAGE

For the first six months or so the effect of the war was to ease the pressure in the market for dwellings. Many unmarried men and widowers who had their own homes gave them up when they were called to the colors. Soldiers' wives went back to their parents or went into rented rooms. The building of houses did not decrease in 1914, while the demolition of buildings almost stopped. Hence there was an increase of nearly 5,000 in the available supply before the end of the year.

Moreover, fewer new households were being established, in spite of the fact that for some months the marriage rate was very high. Newly married couples postponed the establishment of homes, and unmarried and widowed persons who were living in other households, and normally would have been in a position to set up their own establishments, postponed such action. The result of all these changes was a material increase in the number of empty dwellings.

The tide soon turned in the other direction. The whole mobilization and the direction of the Austrian war industries were centralized in Vienna. The high wages

<sup>2</sup> See pp. 66-67.

paid in the war industries drew nearly all the available labor force to the capital. When the Russian army entered the eastern provinces many refugees fled to Vienna, and after the Italian declaration of war there was another large influx, this time from the southern frontier districts.<sup>3</sup> At the dwelling census of April 12, 1917, 7,710 householders were registered as refugees from the war area, and this was probably less than the actual number.

At the same time many residences were being converted into offices. "The need of the military offices, the official business offices, and the official division of the necessities of life absorbed an extraordinarily great number of dwellings."<sup>4</sup> Moreover, private individuals began to use more residence buildings for business purposes than before the war.

Presently building activity showed the effects of the war. Only a few new buildings were started in 1915, and in 1916 construction activity almost stopped, "on account of the lack of labor and material, which were subject to official control, and on account of the lack of mortgage credit which suffered the ruthless competition of the war loans."<sup>5</sup> In the year 1918 the net increase of dwellings was only 36.

Within a few months after the time the rent restriction started, the housing shortage, as measured by vacancies, was worse than before the war. According to the census of April 12, 1917, 8,249 dwellings stood empty, or 1.49 per cent of the total number. This would apparently indicate some improvement as compared with May 20, 1914, on which date the vacancies num-

<sup>3</sup> International Labour Office, *Housing Problems Since the War*, p. 356.

<sup>4</sup> *Internationaler Donau Lloyd*, Vol. III, Oct. 15, 1923, p. 7.

<sup>5</sup> Vas, *Die Wiener Wohnungszwangswirtschaft*, p. 1.

bered only 7,516, or 1.39 per cent of the total. The number of empty small dwellings, many of which had been given up at the beginning of the war, had increased the most, that is, from 3,514 or 0.89 per cent, to 6,508 or 1.60 per cent. But these figures include buildings which were reserved for special purposes in connection with the war.<sup>4</sup> The dwellings which actually were for rent to the general public on May 2, 1917 numbered only 4,574.

In 1917-18 the shortage of houses became very serious. But the new households that were established were much more numerous than the old ones that were broken up. In consequence, the number of vacancies steadily decreased, until on October 31, 1918 there were actually only 254 dwellings for rent. In September 1919 only 105 vacant dwellings were reported, and these were unfit for use. In other words, before the war ended the vacancies dwindled to such low figures that any further increase in the housing shortage had to be registered either in the number of the absolutely homeless, or in an increased congestion of existing dwellings—there was no possibility of relief from a further reduction in vacancies. In 1919 the government began to requisition space in private homes, and allocate it to the homeless. The law applied only to dwellings of more than three rooms, however.

Some light may be thrown on the situation by the changes in the number of persons registered with the city housing office as applicants for the assignment of dwellings. Between March 1920 and April 1922, 91,690 applications were filed, of which 38,389 were put in a preferred classification. In April 1922 a new and more

<sup>4</sup> In one single district more than 1,000 dwellings stood empty which were available only to workers in the brick yards.

rigid system of classification was introduced. The number of applicants who were registered in Class I under this system at the end of the next four calendar years was as follows:

1922 .....	15,039
1923 .....	19,503
1924 .....	20,800
1925 .....	16,448

The following table shows the number of apartments that were taken over under the requisition law and the number of persons who were assigned dwellings in the years 1919-25:

	Dwellings Requisitioned	Dwellings Allocated
1919.....	4,914	5,065
1920.....	5,975	6,723
1921.....	9,385	9,363
1922.....	9,629	10,748
1923.....	6,014	7,397
1924.....	5,068	8,658
1925.....	3,790	14,184

The increase in the number of allocations in the last three years, which coincides with a decrease in the number of requisitions, is to be explained by the fact that in these years the newly erected city buildings were beginning to be available.<sup>7</sup>

There is no question that just after the war the market demand for dwellings in Vienna greatly exceeded the supply. The reasons for the shortage, however, are not so clear, as it might reflect either an increase in needs as compared with supply, or a change of standards, or it might be merely an evidence of the distorting effect of

<sup>7</sup> Both sets of figures are from H. Pawlik, *Das Wohnungswesen in Wien*, in L. Neumann, *Das Wohnungswesen in Oesterreich*, pp. 66-68.

rent restriction on the balance of supply and demand. We must therefore consider the demographic changes of the war period in their relationship to the housing situation.

### III. THE NEED FOR DWELLINGS

The actual need for dwellings, as distinguished from the market demand, may be gauged by the size of the population; age composition; the marriage rate; the character of the inward and outward migration; and the proportion of the population who do not make up families in the ordinary sense of the term.

*Population.* According to census data, the population of Vienna declined during the period from December 31, 1910 until March 7, 1923 by about 265,000.<sup>8</sup> The average number of persons per dwelling was 4.23 in 1910, 3.55 in 1920, and 3.42 in 1923. This decline on the face of things would indicate a decreased need for dwellings. Several other factors have to be taken into consideration, however. For one thing, the need for separate dwellings depends not merely on the number of the population, but on its age composition.

*Age distribution.* If we compare the population of 1910 and 1923<sup>9</sup> by age groups we find a decrease for each single year of life from 1 to 38, and an increase for every age from 39 to 80. For those over 80 taken as a group, there is a decrease. If we classify all persons who have passed 24 years as adults and the rest as juveniles, we get the following results:

Age Group	1910	1923	Net Change
Juvenile . . . . .	876,068	647,929	-228,139
Adult . . . . .	1,155,430	1,217,851	+ 62,421
Total . . . . .	2,031,498	1,865,780	-165,718

<sup>8</sup> *Statistisches Handbuch für die Republik Oesterreich*, 1927, Vol. VIII, p. 2.

<sup>9</sup> Concerning the distribution for the year 1923 compare Winkler, "Die Altersgliederung," pp. 147-48.

The classification shows clearly that the decline in population consisted chiefly in a decline in the number of children and young people. This shift in age composition of the population was due chiefly to a decline in births.<sup>10</sup> The increase of adults from 1910 to 1923 was so great that we can safely conclude that the number of adults in 1923 was at least as great as at the beginning of the war.

*Migration.* Those who hold the building activity to have been necessary contend that the number of families went up more than the number of adults because the immigration consisted essentially of families, and the emigration essentially of individuals. Thus an official publication says:

While the migration from the Succession States [to Vienna] in general occurred suddenly, under pressure, and always led to a demand for dwellings, the outward migration did not release dwellings. The citizen of one of the Succession States ordinarily went away and left his wife and family until a more favorable opportunity for moving them. In other cases, for instance in the migration overseas, it was usually individuals able to earn their living who went, leaving their families here.<sup>11</sup>

If this contention is correct, however, the proportion of women in the population ought to have risen materially between the outbreak of the war and 1920. In fact the excess of female emigration over the immigration was probably only 12,000 less than the excess of male emigration.<sup>12</sup>

<sup>10</sup> Of the male persons under 24 years of age in 1923, naturally there were only a few who took part in the war; this is reflected in the fact that of the total decline of juveniles 114,612 was in the male, and 113,527 in the female population. In 1923 the population under 21 years of age (540,048), none of whom took part in the war, was almost exactly the same as the number under 16 in 1910 (539,596).

<sup>11</sup> *Die Wohnungspolitik der Gemeinde Wien*, p. 15.

<sup>12</sup> The number of people who migrated overseas in 1920-21 was only 3,242. *Wirtschaftsstatistisches Jahrbuch*, 1924, pp. 18-19.

*Marriages.* Another item which throws some light on the need for homes is the number of marriages, and this was very profoundly affected by the war and post-war conditions. The accompanying table shows the number of marriages by years, for the period from 1910 to 1923.

MARRIAGES IN VIENNA, 1910-23\*

Year	Number	Year	Number
1910.....	18,713	1917.....	12,406
1911.....	19,280	1918.....	17,123
1912.....	20,127	1919.....	26,182
1913.....	17,791	1920.....	31,164
1914.....	22,294	1921.....	29,274
1915.....	13,954	1922.....	26,568
1916.....	12,885	1923.....	19,827

\* *Statistische Mitteilungen der Stadt Wien*, 1926, Supplement 4; Walter Schiff, *Die natürliche Bewegung der Bevölkerung der Bundeshauptstadt Wien in den Jahren 1909-25*, p. 6.

The number of marriages in Vienna, after a sharp increase on account of soldiers' weddings at the very beginning of the war, declined greatly for several years. It showed a sharp increase in 1918, and in the three post-war years was very much larger than it was before the war. In fact, the increase after the war was more than enough to make up the deficiency; the average for the ten years 1914-23 was 10 per cent greater than for 1911-13. If the number of marriages were a reliable index of the need for dwellings the reason for a housing shortage in 1920-23 would be clear.

In this case, however, it does not appear at all certain that the increase in marriages represents an actual increase in the need for dwellings in 1923 as compared with 1914, though it obviously does reflect an increase as compared with, say, 1919. There are several indications that the significance of the number of weddings as an index of the need for dwellings was not the same in

the post-war as it was in the pre-war period. In the first place, in the post-war marriages the proportion of cases in which one of the parties was a widow or widower was naturally very much higher than in the pre-war years. Second, the revolution resulted in the removal of barriers to the remarriage of divorced persons. For both these reasons the proportion of cases in which one or the other party already had a dwelling must have been higher in the post-war than in the pre-war marriages. Indeed, where both parties have been married previously, a marriage sometimes leads to a reduction in the number of dwellings needed.<sup>13</sup>

*Households.* Defenders of the administration's policy point out that the number of households went up by more than 40,000 between 1910 and 1923.<sup>14</sup> But this figure reflects merely the number of tenancies, and the issue is not whether there was an increase in the number of tenants, but whether the increase in the number of tenants was due to a change in real needs, or to changes in incomes, in rents, and in social attitudes.

Hence we have made a detailed study of the changes which took place after 1910 in the composition of the population by sex and marital status to see what would have been the normal increase or decrease in the number of households if there had been no change either in housing standards or in the ratio between the num-

<sup>13</sup> The percentage of marriages in which one or both parties had been married before was 13.5 in 1912, 14.2 in 1913, and 12.7 in 1914. In 1919 the percentage was 30.5 and in 1920 it was 28.7. About one-third of the increase was apparently due to the increased proportion of marriages of widows and widowers, and the other two-thirds to an increase in the marriages of divorced persons which were much easier to arrange after the revolution than before. (Percentages computed from data in the statistical publications of the city of Vienna.)

<sup>14</sup> *Die Wohnungspolitik der Gemeinde Wien*, p. 20. Compare also *Das Wohnungswesen in Oesterreich*, p. 51; *Das Neue Wien*, I, 208.

ber of households to the number of persons classed as married, unmarried, and widowed respectively. This computation indicates that the increase in the number of households from 1910 to 1923 was no greater than that which we should have expected on the basis of the changes in the make-up of the population.<sup>17</sup> That is to say, if there had been no change in the proportion of households to the numbers of individuals in the various age and marital groups there would have been, in spite of a decrease of 165,718 in the population, an increase in the number of households of around 40,000, just the amount of the change that actually occurred. Most of the increase in the number of households took place between 1910 and 1914, during which time there was an increase of about 40,000 in the number of dwellings, but even as compared with the situation in 1914 no reduction in the number of households was to be regarded as normal.

Finally, there were certain political and economic dislocations which increased the need for dwellings on the part of the population of Vienna. From 1910 to 1923 the number of employees of the public defense decreased by 17,232, and the number of servants by 49,063. In both these groups there is scarcely any need for separate dwellings. The smaller the proportion of military persons and of household servants in the population, other things being equal, the greater the need is for dwellings.

We conclude that the real need for separate dwellings in 1920 was about the same as at the outbreak of the war, and was substantially greater in 1923. However, the increase, as compared with the change in the

<sup>17</sup> For details, see Appendix C.

physical supply of housing facilities, was not nearly great enough to account for the severity of the housing crisis. To explain this we must take into consideration the rent restrictions. The effect of the restriction was to freeze the existing distribution of homes. Individuals no longer gave up their dwellings because of loss of income or because of the breakup of the families. For new families which were formed by marriage or brought in by migration, almost no apartments were being released by the disappearance of other families from the market. It is not an accident that the shrinkage in the vacancy figures became manifest only in the course of 1917; the rent restriction went into force in January of that year. With no normal turnover, a severe shortage could develop without any increase in the amount needed to maintain the old standards; for many people were able to improve their standards, and others had to be pinched correspondingly.

## CHAPTER IV

### THE MUNICIPAL BUILDING PROGRAM

At the outset the building program was an emergency expedient and not the outgrowth of a permanently considered policy. Its purpose was not to improve the community's standards of housing, but to provide relief for the absolutely homeless. To this end it was necessary to utilize every possible resource and to put speed ahead of quality. It is very easy, however, for emergency relief to grow into permanent reform, or become a cloak for it, and so it was in Vienna.

#### I. EMERGENCY MEASURES, 1919-22

One obvious remedy for the housing shortage was the reconstruction of such existing buildings as were unfit for occupancy. The first step was to renovate and rearrange for family use the temporary barracks, mostly one-story frame dwellings, which were released from military use on account of the demobilization of the army. In this way 86 dwellings were provided in 1919; by 1922 the total was 785. Many of these are still in use. Remodeling of an arsenal and of certain large permanent military dwellings yielded 515 more.

Another resource was found in structures which had been started by private enterprise before the war and left unfinished on account of the shortage of capital and the appropriation of men and materials by the army. Two uncompleted tenement houses were purchased and finished to make 55 small dwellings; and architectural changes in an abandoned school house provided 23 more. Several hundred more apartments passed into the con-

trol of the city with the decline of activity of the national bureau for the relief of war refugees.

Construction of new buildings was planned on a modest scale as early as 1919. In the fall of that year the city authorized the erection of an apartment house on a former military parade ground in the Fifteenth District. This project embraced 42 two-story structures, and a total of 308 apartments. Progress was slow because all building materials were still under the control of the army and because of a coal shortage which kept the brick factories idle. Difficulties arose also in connection with the transfer of the land from the control of the army to that of the city, so that the buildings were not completed until 1922. In the summer of 1921 the project was expanded to include 13 more structures, comprising 123 dwellings; these were completed in 1923.

The buildings were laid out with wide courts suitable for small gardens. In each story there were four small dwellings, which contained in most cases either a hall, a full-sized room, and a kitchen; or else a hall, a full room, a sleeping chamber, and a kitchen. All the dwellings were equipped with gas and with running water, and all had individual toilets. The dwelling rooms, however, had softwood floors, and the second lot included attic dwellings.

A national law passed on June 17, 1920 relaxed the provisions of the building laws with regard to attic dwellings and projecting upper stories, with the purpose of reviving private building activity in the form of enlargement of existing buildings, but the results were negligible. The city, however, took advantage of the law to build a number of extensions to existing buildings which it already owned, thus providing 194 new dwell-

ings, and 308 more were provided by reconstructing requisitioned private buildings.

On October 10, 1921 a municipal decree was issued which relieved all new private buildings from the requisition laws and from all city taxes for 30 years, but there still was no interest in private building. It seemed clear that for the time being there was no possibility of securing any new dwellings except through some sort of public activity. At the same time new financial resources, the most important of which was the rent tax, became available.<sup>1</sup> This made possible a much more extensive program of building. The total number of dwellings constructed in 1922 was 658, some in newly constructed buildings, some in extensions to existing structures, and a few in buildings which had remained uncompleted since the beginning of the war.

## II. THE MAJOR BUILDING PROJECTS, 1923-33

All this activity was only preliminary to the real effort. In 1923 the city entered on a vast building program which was intended not merely to relieve the current acute crisis, but to effect a fundamental change in the whole housing situation. The rent tax was completely overhauled and became a highly progressive tax, now known as the house construction tax (*Wohnbau-steuer*). Other taxes also began to yield a surplus. Funds were thus made available for building on a huge scale.

On September 21, 1923 the City Council authorized the erection in the next five years of 5,000 dwellings a year. Such a program implied clearly that the intention was to make the provision of housing a permanent municipal responsibility. This five-year program was carried through to completion in less than schedule time.

<sup>1</sup> Compare p. 28.

In 1927, therefore, 5,000 more dwellings were authorized, and later in that year a new five-year program of 6,000 dwellings a year was authorized. This latter schedule was not fully maintained, but by the end of 1933 the city had actually built more than 58,000 dwellings, an addition of over one-ninth to the housing resources of the city. Well over one-eighth of the population of the city is now housed in municipal dwellings, and if the power of the Social Democratic party had continued and financial conditions had permitted, the city government expected to continue the building program indefinitely.

The record of construction by years is as follows:<sup>2</sup>

Year	Apartment Buildings	Suburban Cottages	Total Number of Dwellings
1920-22 . . . . .	6	573	1,244
1923 . . . . .	11	849	1,706
1924 . . . . .	14	975	2,478
1925 . . . . .	26	380	6,387
1926 . . . . .	39	486	9,034
1927 . . . . .	32	89	6,763
1928 . . . . .	33	458	4,584
1929 . . . . .	49	239	5,003
1930 . . . . .	49	601	6,575
1931 . . . . .	34	283	6,180
1932 . . . . .	29	277	5,098
1933 . . . . .	13	47	3,625
Total . . . . .	335	5,093	58,667

<sup>2</sup> There are some discrepancies between different official publications as to the exact number of dwellings constructed. The figures in the text, except for the 1933 figures, which were obtained from the statistical office of the city of Vienna by correspondence, are taken from the latest available source, the *Statistisches Taschenbuch der Stadt Wien*, 1932, p. 22. In *Die Wohnungspolitik der Gemeinde Wien* (p. 29) the number built up to the end of 1923 is given as 4,258, and in *Das Neue Wien* (Vol. III, p. 51) it is stated that 658 were constructed in 1922 and 2,256 in 1923.

Construction of 1,358 dwellings was begun in 1933. The total number of dwellings owned or directly controlled by the city at the end of 1933 is shown in the accompanying table.

DWELLINGS OWNED OR DIRECTLY CONTROLLED BY THE CITY OF VIENNA  
DECEMBER 1933<sup>a</sup>

Type of Structure	Buildings	Dwellings	Business Rooms
Old houses <sup>b</sup> . . . . .	507	5,596	1,244
Apartment houses <sup>c</sup> . . . . .	335	53,071	2,100
Suburban cottages (42 groups) <sup>d</sup> . . . . .	5,093	5,492	50
Barracks (three groups) . . . . .	61	757	12
Emergency buildings . . . . .	15	287	4
Trust fund properties <sup>e</sup> . . . . .	93	1,312	294
Total . . . . .	6,104	66,515	3,704

<sup>a</sup> These data were furnished by the statistical office of the city of Vienna.

<sup>b</sup> Privately built, but now municipally owned.

<sup>c</sup> Built by the city.

<sup>d</sup> Built by the city or by co-operative groups.

<sup>e</sup> Old buildings owned by endowments administered by the city.

The buildings are of two entirely different types; the big apartment houses and small one- or two-family suburban dwellings with gardens. As is shown by the table, the overwhelming majority of the dwellings are of the former type. In Chapter VII we shall consider the question whether it would have been wiser to build more cottages and fewer apartments; in this chapter we shall merely describe the buildings themselves.

### III. LOCATION AND SIZE OF APARTMENT BUILDINGS

A glance at the map following this page will show that the buildings are widely distributed throughout the city, nearly all of them, however, within four miles of the center. Most of them are concentrated in a ring from two to three miles out. In 1931, of 44,735 apartments which had been built by the city, 9,361, or a little over

one-fifth, were in the districts numbered from II to IX which are adjacent to the Inner City. These districts, together with the Inner City, house about 740,000 people in an area of less than 17 square miles, of which nearly one-half is in the uninhabitable portion of District II. Of the nine districts which in 1923 housed over 80 persons to the acre, only three, the third, the fifth, and the fifteenth, had over 1,000 of the apartments which were built by the city, and those in District V were on the extreme outer edge, practically in District XII.

The location of the apartments seems to have been determined by the necessity of compromising between two main considerations. On the one hand, it was desired to avoid the demolition of existing buildings; on the other hand, it was deemed imperative, for reasons of economy, to make as much use as possible of the existing network of streets and street railways, and gas, water, electric, and sewer lines. Comparatively few sites were vacant in the more densely populated sections of the city. Consequently the buildings tend to concentrate themselves on the edge of the built-up area in a region along the border between the four-story and the five-story zones laid out by the building regulations.

Most of the apartment houses are very large. At the end of 1932 the average number of dwellings in the 322 structures was over 150, and at the end of 1931 there were 26, including some under construction, which had over 400 dwellings each.<sup>3</sup> The largest completed structure, the Karl Marx Hof, contains 1,382 dwellings and extends along the street for more than half a mile. (See

<sup>3</sup> It is sometimes alleged that the buildings were distributed with a view to importing Social Democrat voters into Christian Socialist districts. The distribution, as shown on the map, does not support this charge. The districts in which in 1923 the Social Democrats polled fewer votes than the Christian Socialists are Numbers I, IV, VI, VII, and VIII.

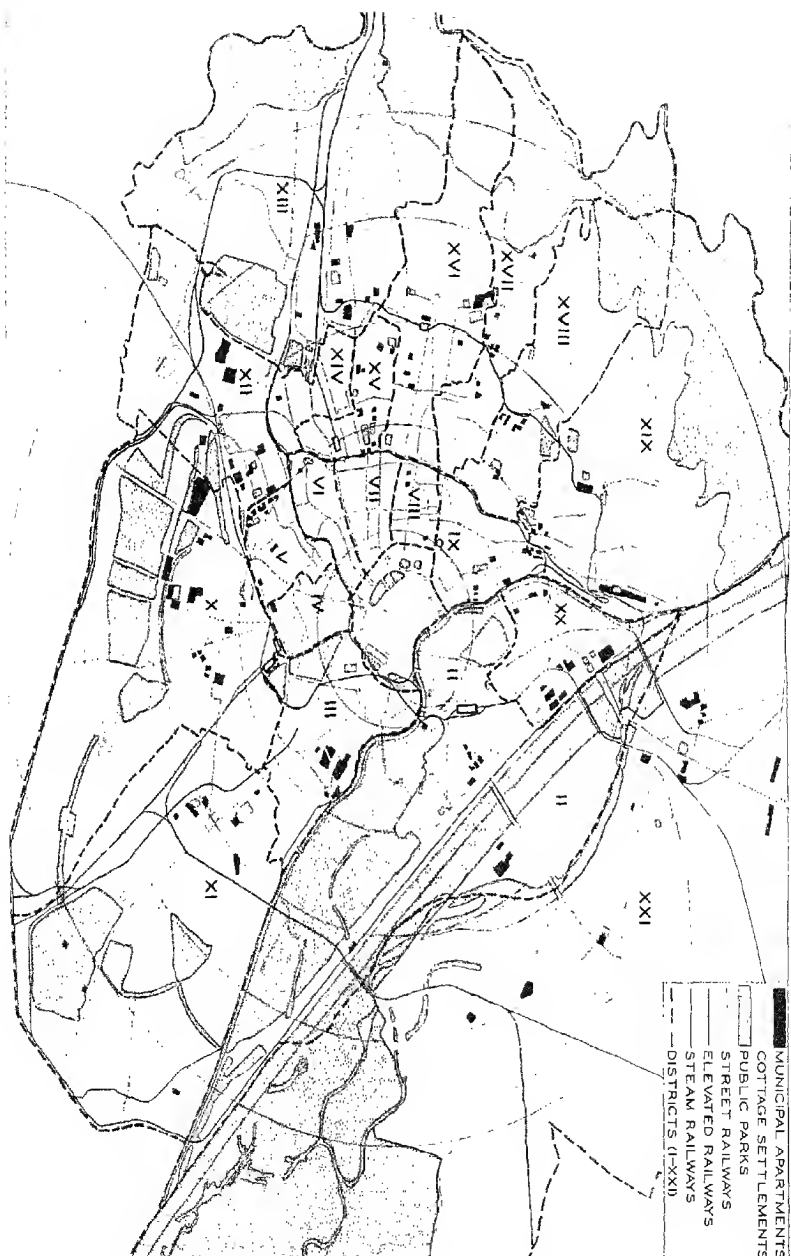
the frontispiece of this volume.) A still larger project, planned ultimately to embrace 2,200 dwellings, was begun in 1932.

The ground plan of the buildings is determined by three main conditions: First, the shape of each building plot sets the architect a special problem, for the majority of the structures are located in sections of the city which are already built up and the effort is always to avoid the demolition of existing serviceable buildings. Second, the general rule is that not more than half the site shall be built over. In most cases, particularly in the larger buildings, the proportion utilized is considerably lower than this, but we have noted a number of cases where the utilization overruns the 50 per cent limit; in a few it is as high as 70. Third, it is an absolute requirement that every room intended for occupancy, including the kitchens, must have an outside window. Since 1930 the building code requires that light shall enter every window in a room intended for occupancy at an angle of at least 45 degrees with the vertical.\* This latter specification was in fact being met in the buildings erected before the adoption of the new code.

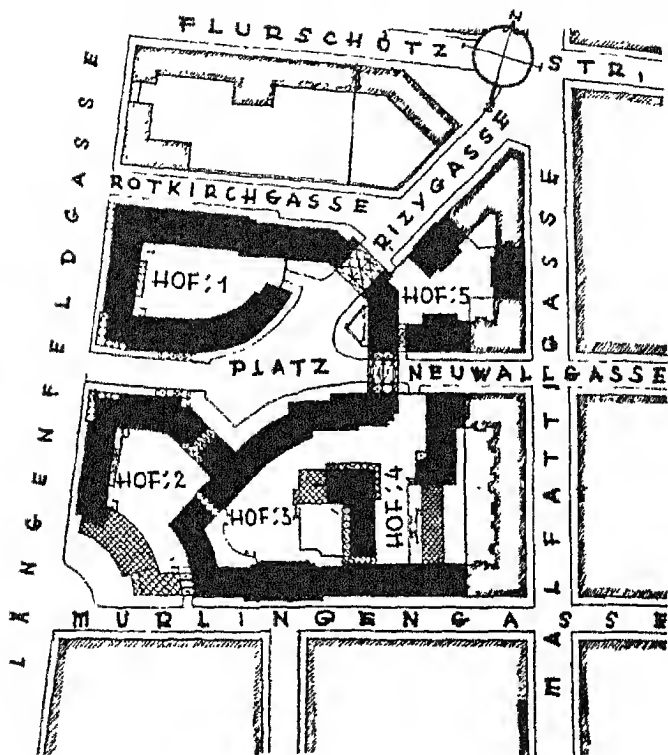
To meet these requirements the typical solution is some modification of the hollow square with the shell just thick enough to accommodate two dwellings, one having windows on the street, and the other on the court. There are numerous arches connecting the inner courts with the street and often the square is broken on the south to let in more sunshine. Where the hollow square arrangement makes the courts unnecessarily large, wings are built, jutting into it. Some typical ground plans are shown in the accompanying diagrams.

\* Compare p. 136.









GROUND PLAN OF "AM FUCHSENFELD,"  
TWELFTH DISTRICT

(Solid black area represents new municipal construction; area with shaded border, pre-war buildings now owned by the city.)

The walls of the buildings are of brick. The lower walls are generally 51 centimeters, or 20 inches, thick, the upper ones 38 centimeters. The division walls, which carry the chimneys, are 64 centimeters thick below and 51 centimeters above. The partitions between the dwellings are also of brick and are 12 centimeters thick. The partitions within the dwellings are 7 centimeters thick

and are made of plasterboard or light cement slabs. Reinforced concrete is used in constructing the floors and in pillars and in masonry work where special strength is needed.<sup>5</sup>

Official publications admit that inferior materials were used in the earliest buildings when material was scarce and was largely required by the army, but opponents as well as advocates of the administration generally regard the quality of the houses built since 1922 as technically excellent.<sup>6</sup>

Nearly all the buildings consist of either four, five, or six stories. There are neither passenger nor freight elevators, but there is a great abundance of stairways, since no more than four dwellings on one floor are served by the same staircase. There is no central heating; coal stoves are the usual heating apparatus. In later years the city began to install coke-burning stoves without extra charge.

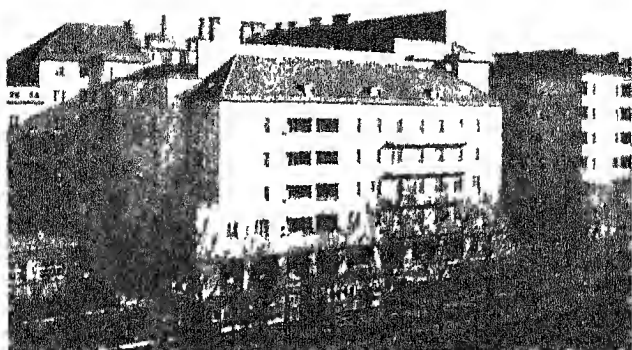
There are numerous balconies, and much use is made of nooks, pillars, bay windows, and other ornamental detail which break the monotony of the appearance of the buildings.

#### IV. SIZE AND EQUIPMENT OF INDIVIDUAL APARTMENTS

By American standards the municipal apartments are very small, though they average about one-third larger than the dwellings in pre-war apartments. In the 25,000 apartments which were started before 1927, the average amount of floor space, by our computations, was 43.8 square meters (about 456 square feet). The ceilings are 280 centimeters (about 9 feet 2 inches) high.

<sup>5</sup> Adalbert Furch, "Die konstruktiven Fragen bei den mehrgeschossigen Gemeindewohnhäusern," in L. Neumann, *Das Wohnungswesen in Oesterreich*, pp. 211-16.

<sup>6</sup> Some reconstruction was necessary in the case of the Karl Marx Hof, built in 1927, on account of settling.

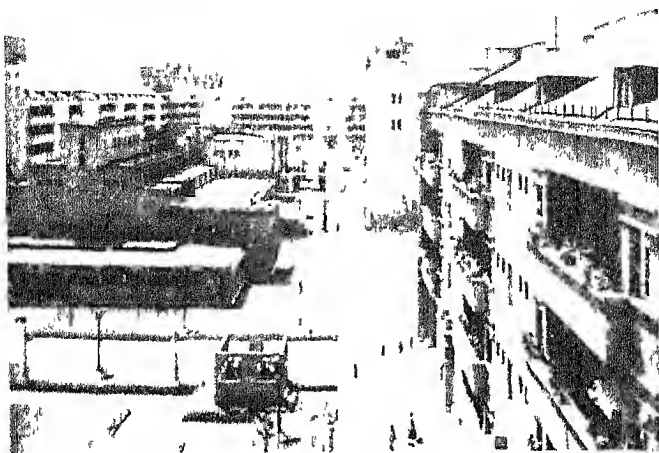


# MUNICIPAL APARTMENT DWELLING

Top: A street scene in the Fifth District

Bottom: An apartment building in the Fourth District

*Courtesy of the U.S. Department of Housing and Urban Development*



#### COURTYARDS IN MUNICIPAL APARTMENTS

Top: Principal courtyard of the Karl Marx Hof showing the central laundry and behind it the kindergarten.

Bottom: Courtyard of an apartment house in the Thirteenth District.

(Courtesy of Cassella Löffler and Walter Hüttemann in Wien)

For the newer buildings we have more detailed information. The apartments that were planned in 1927, after the completion of the first program, were of the following standard types:

A. Dwellings with 40 square meters floor space, distributed as follows:

Living room . . . . .	18
Sleeping chamber . . . . .	10
Kitchen . . . . .	9
Front hall . . . . .	2
Toilet . . . . .	1

B. Dwellings with 48 square meters floor space, as follows:

Living room . . . . .	18
Sleeping chambers (2) . . . . .	21
Kitchen . . . . .	7
Front hall . . . . .	2
Toilet . . . . .	1

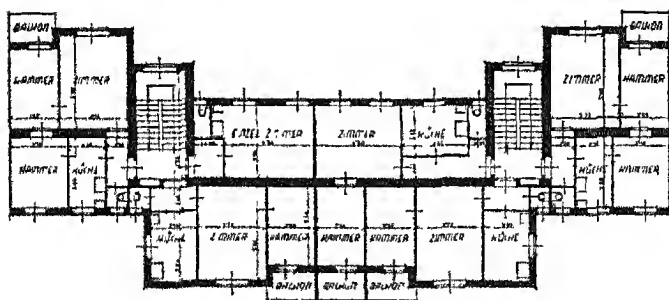
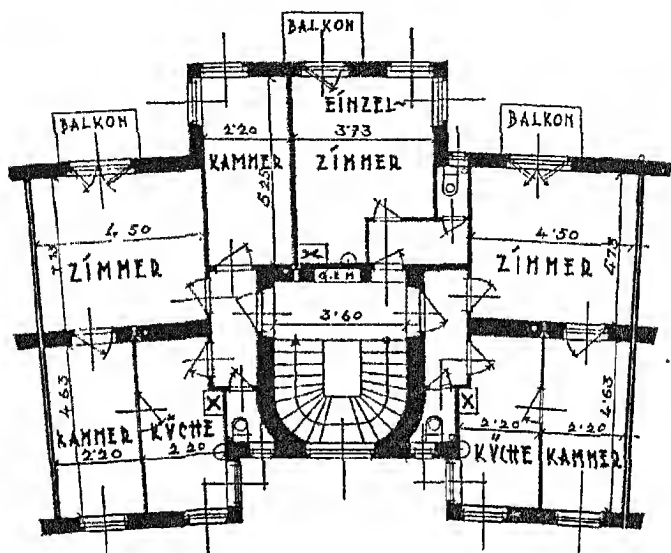
C. Dwellings with 57 square meters floor space, as follows:

Living rooms (2) . . . . .	36
Sleeping chamber . . . . .	11
Kitchen . . . . .	7
Front hall . . . . .	2
Toilet . . . . .	1

D. Apartments intended for single tenants, 21 square meters floor space, as follows:

Room with running water . . . . .	18
Front hall with gas hot plate . . . . .	2
Toilet . . . . .	1

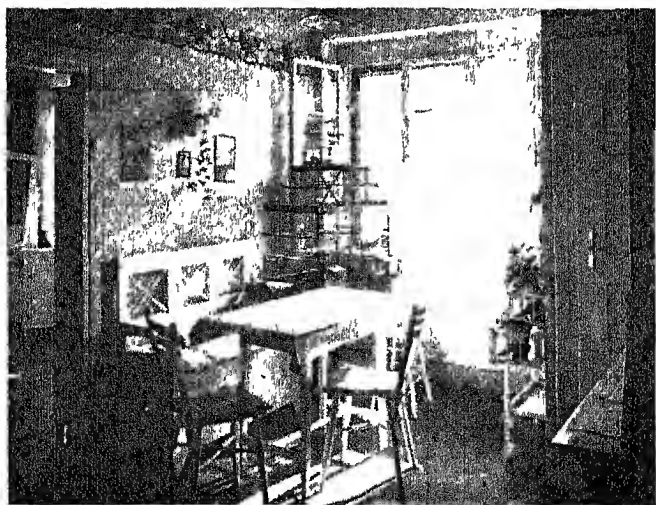
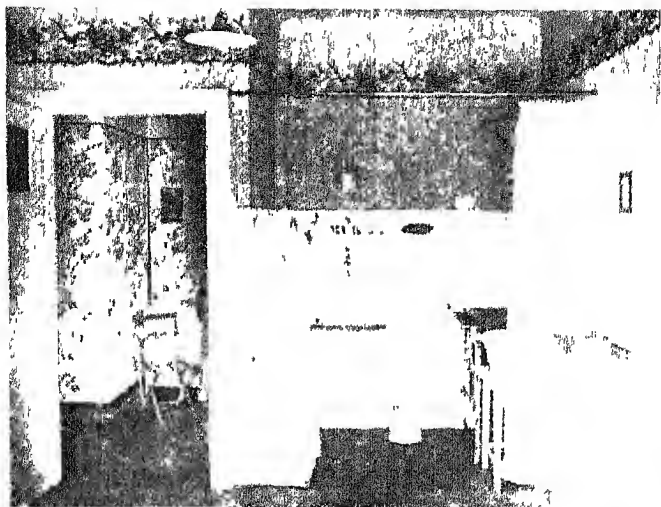
Typical floor plans are shown on page 64. A few larger apartments were provided in each of the large buildings; these were intended primarily for physicians' use as combined homes and offices, and for similar purposes. It was stated in 1929 that as the buildings were then being planned, 55 per cent of the dwellings would fall in the 40 square meter class; 25 per cent in the 48



### FLOOR PLANS OF TYPICAL MUNICIPAL APARTMENTS

Meaning of terms: *Balkon*, balcony; *Zimmer*, living room; *Küche*, kitchen; *Kammer*, sleeping chamber; *Einzelzimmer*, single room; G.E.M., gas and electric meters.





KITCHENS IN MUNICIPAL APARTMENT DWELLINGS  
 (Courtesy of Council of Social Studies and the Metropolitan Museum of Art)

square meter class; and 20 per cent in the 21 square meter and 57 square meter classes, making the average size about 40 square meters, or 38 square meters in the latest buildings.<sup>7</sup> In 1931 it appears that the size of the single rooms had been reduced to 18 square meters and that another type of apartment comprising a front hall, a full sized room and a kitchen, with a total area of 35 square meters, had been introduced. Storage space for coal and for personal effects is provided in the basement and attic.

There are no individual bathrooms except in two of the smaller buildings, but there is running water in all the kitchens. There is a toilet with running water for each dwelling, even the one-room apartments. This construction necessitated one innovation in Viennese architecture; the dotting of the street façade, as well as the court, with the small windows which ventilate the toilets.<sup>8</sup> Objections were voiced on aesthetic grounds.<sup>9</sup> There have also been objections to kitchen windows on the street on the ground that they are likely to be filled with milk bottles, wash cloths, and other unseemly paraphernalia.

In all except the earliest dwellings there are hardwood floors. The floors of toilets, and of kitchenettes where these exist, are waterproofed. All the dwellings have either gas or electricity, and most of the newer ones have both.

In all buildings with 400 dwellings or more, public

<sup>7</sup> Otto R. Hellwig, "Rationelle Grundrisse für Klein- und Kleinstwohnungen," *Die Wohnungsreform*, December 1929, Vol. 1, Pt. 2, p. 11.

<sup>8</sup> Compare illustrations of municipal apartments in this chapter with the pictures of pre-war buildings in Chap. II.

<sup>9</sup> It was also claimed that the real purpose of these windows was to serve as machine gun portals in case of war.

bathrooms and community laundries are installed in the basements. The equipment of the laundries is thoroughly modern, but there is only enough of it to permit a family to have a washday once in two weeks; in some cases only once in three weeks. In buildings where there are no public laundries, clothing is washed in the kitchens and dried on the roof.

There are mothers' clinics, public rooms where children are cared for in the absence of their parents, wading pools in some of the courtyards, and in some of the larger apartments there are motion picture theatres. School rooms are provided in a few cases where there is no convenient access to schools already built. The ground floor is in considerable part rented for business purposes.

#### V. COTTAGE SETTLEMENTS

The second phase of the city's housing program is the building of cottages with gardens in the more remote sections of the urban area. This is historically the first phase of the program, but after 1923 it became distinctly a minor element, much to the displeasure of most foreign critics.

The suburban cottage settlement got its original impetus from the shortage of food during and just after the war, more than it did from the housing situation. As was noted in Chapter I, just before the war there was a beginning in Vienna of an organized movement to plant small gardens on vacant tracts near and in the city. But this idea, which was an importation from Germany, was little more than a fad. During the war a serious shortage of food led to much official and private effort to encourage gardening, with the result that by 1918 the number of small gardeners was estimated at 9,000. It was assumed that this activity would cease

when deprived of official stimulation at the close of the war; hence it was left to a large extent unregulated. But instead it took on much larger proportions after the war, the number of gardens rising to 14,000 in 1919 and to 30,000 by 1921.<sup>10</sup>

These so-called *Schreber*<sup>11</sup> gardens were customarily equipped with shacks for storage purposes in which, after the housing shortage became more serious, people began to sleep; at first in the summer and later the year round. The shacks took on the form of more and more permanent structures and presently the city authorities awoke to the fact that a great extension of inhabited area was taking place and that the building codes were being completely disregarded. The city therefore began to regulate the movement, and to subsidize it as a means of relieving both the food and the housing shortage.

Meanwhile a large number of co-operative organizations were formed, first among gardeners and then among "colonists." The colonists' unions undertook to aid their members to obtain land and funds for buildings, and to agitate for improvement of the transportation facilities. They also served as agencies for joint purchase of building material and for the co-ordination of building operations.

After 1919 the city began to aid the movement by some extension of the street railway system. More definite recognition came in 1921, when an order of the City Council zoned certain suburban areas for one- and two-story buildings, and protected them against the intrusion of other types of architecture. There were also introduced some modifications of the building laws in favor

<sup>10</sup> *Das Neue Wien*, Vol. I, p. 294. Higher figures are given in *Internationaler Donau Lloyd*, Oct. 15, 1921, pp. 21-22.

<sup>11</sup> From the name of the founder of the movement.

of the small builders. Heretofore the same standards, in most respects, had been applied to one-family houses as were applied to big tenement buildings. After 1921, rooms of only 260 centimeters height (8 feet 6 inches) were permitted in one-family houses, hollow walls were permitted, roofs need not be fireproof, and gravel sidewalks were permitted. In some cases fireproof partition walls between the individual houses in a row were dispensed with, and the party walls built like partitions within a dwelling. Exemption from certain taxes was also granted. Extensive grants of public land were made; of the 2,632 suburban cottages which were erected with public assistance in the years from 1921 to 1925 inclusive, 2,492 were located on land owned by the city.<sup>12</sup>

The city's share in the financing of the cottage building movement passed through three rather definite stages: First, in 1921 and 1922 funds were loaned to individuals, both by the city government and by the federal government. In this way 613 houses were financed; the city furnishing assistance to the extent of 1,020,000 schillings and the federal government 890,000. No assistance was given by the federal government after 1922.

In the second stage, from 1923 through 1926, a co-operative plan was in effect under which the city advanced 85 per cent of the necessary funds for building and also furnished the land. The prospective occupants, through their co-operative associations, were responsible for the other 15 per cent. The contribution of the co-operative associations was paid chiefly in the form of work performed by its members, the "colonist" being expected to perform from 1,200 to 1,300 hours of labor

<sup>12</sup> *Das Neue Wien*, Vol. I, p. 275.



# COITAGE SETTLEMENTS

Top, *Am Hassertum* in the Tenth District

Bottom, *He Burger gawe* in the Twelfth District

(Courtesy of Getty Images and War Edition.com to Wynn)



in the preparation of the ground and in the building operations. The streets were paved by the city without any charge against the properties.

The funds advanced by the city were nominally loans, and were secured by mortgages. But the interest and amortization were fixed on the basis of the rental value of the properties, and the rent was figured as the equivalent of the rent of similar space in the municipal tenement dwellings in which no capital charge was included. Hence the interest and amortization charge is almost negligible. The occupant also theoretically pays a ground rent of 3.5 per cent of the value of the land used in these operations, but this amounts to very little, since the ground value was computed on the basis of current prices which are held very low by the absence of any private building activity.

The enactment of the eight-hour laws after the war contributed to the success of this plan, since the colonists could work out their contribution to the cost of the buildings after their day's work. The contributed labor for the years from 1921 to 1925 was officially valued at 4,000,000 schillings, but the quality of the work is well known to have been very unsatisfactory.

Under the third plan, which was adopted at the end of 1926, the city abandoned the requirement that a prospective occupant furnish a part of the capital. The buildings erected since that date have been financed entirely from municipal funds and rented to tenants just as are the municipal apartment buildings.<sup>18</sup>

Though the large apartment building has been preferred, the number of cottages has increased steadily from year to year, as is shown by the table on page 70.

<sup>18</sup> In 1923 and 1924, 265 houses had been built under this plan.

The location of the cottage settlements is shown on the map following page 58. They are concentrated in three areas—the fringe of the wooded hills to the west, the flat lands to the east across the Danube, and the rough land to the south. On the east and the west they are about four miles from the center of the city; to the south they are about 3.5 miles out. The locations to the west are the most attractive from the scenic standpoint; those to the east permit the lowest building costs because of the character of the terrain and also because of the lower expense in the transport of building materials.

COTTAGE SETTLEMENTS OWNED BY THE CITY, OR BY CO-OPERATIVE  
SOCIETIES FINANCED BY THE CITY, 1925-31

Year	Groups	Houses	Dwellings	Business Quarters
1925.....	30	2,411	2,411 <sup>a</sup>	—
1926.....	30	2,982	2,982	16
1927.....	30	3,694	3,694	18
1928.....	35	3,810	3,840	13
1929.....	33	4,049	4,084	14
1930.....	37	4,650	4,899	16
1931.....	41	4,933	5,209	50

<sup>a</sup> This figure includes business quarters as well as dwellings; separate data are not available.

The cottage settlements are usually laid out as row houses, though in some cases they are grouped around enclosed courtyards. With respect to the size of the yard and garden, two main types are to be distinguished. In the years from 1921 to 1924 the dominant idea was to make it possible for the occupants to provide themselves with food. Consequently these homes were provided with lean-tos for poultry and small animals, and with ground space of 350 or 400 square meters. But in the more recent developments, since interest in the food problem has declined, the ground space has been cut down first to 200 and more recently to 120 square me-

ters, and no provision has been made for keeping domestic animals outside the houses.

There are two standard types of dwellings. In one, in which 42 square meters of ground is built up, the floor space is 64 square meters. On the ground floor there is a little hall, a living room, and either a living kitchen with running water or else a smaller kitchen with a little laundry nook which can be converted into a bathroom. In the upper story are one good-sized room and two small sleeping chambers. These houses are considered to be especially suitable for large families. The second type of house, which has been erected since 1928, is laid out more like the typical dwelling in the tenement houses. It covers 32 square meters of ground and has 48 square meters of floor space. There is usually no cellar with either type; at most there is a small one underlying one-third of the ground floor.

In 1921 and 1922 the walls were built chiefly of hollow cement blocks. Later, burnt brick was used, a very common type of construction being a double wall with about three inches of air space between brick walls of about five inches each. In most cases the floors are laid directly on wooden beams, though over cellars reinforced concrete is used. Running water and electricity are available in all these dwellings and in some of them gas can be installed at the tenant's expense. In most cases there is no connection with the city sewage system.

The supply of material and the construction of the cottages is under the management of the joint control of the Gesiba Corporation, founded in 1921, which is owned jointly by the city, the national government, and the co-operative agencies. The Gesiba itself has also built some private dwellings. The cottage settlements are provided by the city with community facilities such as

auditoriums and rooms for co-operative business enterprises, but there are very few central baths or laundries.

The co-operative associations look after the management of the cottages, including repairs and the collection of rents. This applies to those owned outright by the city, as well as those which were erected in part at the cost of the individual. As in the case of the municipal tenement houses, the repair funds include a contribution to a reserve for the increased expense which is to be expected as the buildings get older. The rights and duties of the occupant, as against those of the co-operative society, are controlled by a "co-operative ordinance" which among other things prohibits the occupants from taking in lodgers and requires that the sub-letting of rooms must in each case be approved by the co-operative society.

In addition to this program of building cottage communities, the city government has assisted in a small way in the building of one-family houses by making loans. In the years 1923 and 1924, 177 borrowers were given assistance to enable them to complete projects for which they could furnish part of the funds, and do part of the work.

## CHAPTER V

### FINANCIAL ASPECTS OF THE HOUSING PROGRAM

In this chapter we bring together information as to the costs of the municipal dwellings, the amount and cost of land purchased by the city, the revenues derived from municipal housing, and the methods used to finance the building program.

#### I. BUILDING COSTS

The table on page 74 shows the costs of three groups of buildings: first, the buildings which were begun and completed in 1926-29; second, those begun in 1930 and completed to date; third, those begun in 1931 or 1932, whether completed or not. The table does not include the earliest buildings when the costs were the lowest, and it also omits many buildings which were begun in the last two years.

The 12,558 dwellings in the first group cost on an average 15,176 schillings, or 340 schillings per square meter (about \$40 a square yard); the 12,078 dwellings in the second group cost on an average 15,831 schillings, or 359 schillings per square meter. The 5,807 dwellings in the third group were budgeted to cost on an average 13,081 schillings; we do not have figures on the floor space.<sup>1</sup>

The rise in costs from the first to the second period was not due to an increase in the size of the dwellings since the average cost per square meter of floor space

<sup>1</sup> The figure per square meter for the second group is based on data for only about one-third of the dwellings in the group.

went up by more than 5 per cent. The decline in costs from the second to the third group was in part due to a decline in the size of the dwellings, but there was also

BUILDING COSTS OF MUNICIPAL DWELLINGS IN VIENNA\*  
(Cost items in thousands of schillings)

District	Begun and Completed, 1926-29		Begun Before 1931 and Completed after 1929		Begun 1931-32	
	Number of Dwellings	Final Book Costs	Number of Dwellings	Budgeted Costs	Number of Dwellings	Budgeted Costs
II. ....	365	5,724	620	8,920	539	7,652
III. ....	1,178	16,116	852	13,132	330	4,850
IV. ....	185	2,416	...	...	86	1,012
V. ....	898	12,884	235	3,425	25	287
VI. ....	...	...	171	2,650	...	...
VIII. ....	17	597	90	1,860	...	...
IX. ....	203	3,991	167	2,547	113	1,642
X. ....	483	5,753	1,845	21,583	985	11,290
XI. ....	90	1,288	1,149	17,570	297	4,028
XII. ....	3,206	47,480	958	20,255	544	8,009
XIII. ....	1,013	18,399	356	6,193	521	8,400
XIV. ....	45	706	127	2,000	131	1,560
XV. ....	840	10,338	...	...	471	6,543
XVI. ....	1,080	14,123	550	8,710	503	6,673
XVII. ....	187	2,763	431	7,500	...	...
XVIII. ....	478	7,535	350	5,320	74	1,030
XIX. ....	1,450	25,766	264	3,882	128	2,000
XX. ....	209	3,224	2,791	45,823	61	912
XXI. ....	811	14,215	1,122	19,838	999	13,694
Total. .	12,738	193,318	12,078	191,207	5,807	79,582

\* Data compiled by Dr. R. Kuczynski. The principal sources are: for date of beginning of buildings and for building costs, *Verzeichnis der im Eigentum oder in der Verwaltung der Gemeinde Wien stehenden Wohnhäuser*, Stand: 15. Mai 1929, with mimeographed supplements to the spring of 1931; for date of completion and number of dwellings, *Rechnungsabschlüsse* of the city of Vienna for 1926-29; *Amtsblatt der Stadt Wien* 1929 and 1931; *Die Wohnung*, Vols. I to III (1930-32), a monthly house organ published by the Housing Bureau of the city.

a considerable decline in building costs. The figures are affected by some variation in the extent to which the buildings were fitted out with community facilities—

kindergartens, laundries, bath houses, business quarters, and the like.<sup>2</sup>

It is difficult to compare these costs with private building costs in Vienna because there have been almost no private building operations which could be used as a basis of comparison. *Stadtrat* Weber, the head of the Housing Bureau, said in December 1929, in discussing the budget for 1930:

The basis of computation which the housing office uses is a dwelling of 38 square meters floor space. In 1928 the building costs were figured at 12,500 schillings per unit.

The office has made up an estimate of the cost of the first 25,000 dwellings. The accounts of about one-half of these buildings have been closed. This computation shows a cost of 11,600 schillings for each unit of 38 square meters. However, the average size of the dwellings in these buildings is 48.5 square meters. The costs of dwellings of this latter size, inclusive of the costs of the business rooms, central laundries, bathing quarters, kindergartens, and libraries, average 14,400 schillings. A cottage settlement house with a floor space of 65 square meters costs 14,000 schillings, inclusive of the 10 per cent contribution of the tenant.

In 1928 the costs were 50 schillings per cubic meter; in 1929 the accounts of two small apartment houses have been closed (33 dwellings in all) for which the cost was 41.1 schillings. Experts will agree that these costs are low. It is of interest to compare them with the average cost per cubic meter of private dwellings. The records of the private projects assisted by the federal agencies for promoting buildings show a cost of 1,052,445 schillings for a building comprising 28 small dwellings, or 62.27 schillings per cubic meter. Another structure with 99 dwellings figured out 65.30, and another 66.<sup>3</sup>

<sup>2</sup> In American terms the cost is about equivalent to \$2,000 for three- to four-room apartments without bath facilities, central heating, or elevators, and with only a very low allowance for the value of the land.

<sup>3</sup> *Der Mieter*, 1930, No. 1, p. 1.

## II. BUILDING OPERATIONS

Up to 1922 the making of building plans was almost entirely in the hands of the city's own architects, but when the big program started the architectural section could not handle the volume of business, and the services of private architects were enlisted. Of the 32,752 plans of dwellings which had been made up to 1928, 9,322 were made by the city's own architects, and the rest were divided up among 189 private architects. The work of the private architects is cleared through the municipal architect's office, and subject to its criticism. The municipal office is responsible for the architectural supervision of all the building operations.<sup>4</sup> In the case of many of the larger projects the plans were selected from those submitted on a competitive basis either by several invited architects, or in an open contest.<sup>5</sup>

The labor is done by contract, but the city furnishes all the materials. The major part of these are bought in the open market, but a very considerable proportion are produced in plants belonging to the city. In 1918 the city took over one of the most important companies producing sand, and in 1919 large brick works were purchased. All the limestone comes from quarries at Kaltbrunn which came into the possession of the city in 1923. It is claimed that the city's ownership of factories gives it a bargaining advantage in a definite knowledge of what the costs of production actually are.<sup>6</sup>

Building operations have been executed on such a large scale that it has been possible to place very large

<sup>4</sup> Josef Bittner, "Der Anteil der Architektur-Abteilung am Wohnbauprogramm," in L. Neumann (ed.), *Das Wohnungswesen in Oesterreich*, p. 208.

<sup>5</sup> The same, p. 204.

<sup>6</sup> *Die Wohnungspolitik der Gemeinde Wien*, pp. 76-78.

orders, even to take over a firm's whole output and thus get very favorable prices, especially in view of the slight proportions of other building activity. Materials for a year's operations are ordered in advance, and standard items like windows are ordered by the 10,000. It is claimed that another source of economy is the fact that the city meets its obligations very promptly and even makes advance payments running up to one-half the amount of an order.

Deliveries are made in the city's trucks or by electric car, often over street railway extensions especially laid down for the purpose. As far as possible materials are delivered direct from the place of production to the place of use. Only a small part of the material is stored at the city's storage place. This is used for reserves to even up the unavoidable irregularity in the delivery of material to the building sites. The costs of this temporary storage are low because the storage yard has both a railway connection and access to the Danube Canal.<sup>7</sup>

The inspection of materials is partly the responsibility of the representative of the municipal architect's office in charge of the building, partly of the municipal testing laboratory, and partly of the appropriate national testing institution.<sup>8</sup>

### III. THE ACQUISITION OF BUILDING SITES

Even before the war the city of Vienna had under its control a considerable amount of land within the city.

<sup>7</sup> This plan is cited as a source of economy by the city government, but is criticized by opponents on the ground that such large amounts of material are delivered at the building sites in advance of need that the place is cluttered up and proper inspection is rendered more difficult. (Vas, *Die Wiener Zwangswirtschaft*, p. 73.)

<sup>8</sup> Johann Gundacker, "Die Baustoffbeschaffung," in *Das Wohnungswesen in Oesterreich*, p. 217.

The area which at the end of 1914 was owned either by the city itself or by foundations under its administration, embraced about 27 per cent of the total area within the city limits. The accompanying table shows the amounts of different types of land which the city owned or controlled at that time.

LAND CONTROLLED BY THE CITY COMPARED WITH THE TOTAL AREA OF THE CITY, DECEMBER 31, 1914<sup>a</sup>  
(Classified according to utilization)

Utilization	Area of City (In hectares)	Land Owned or Controlled by the City	
		In Hectares	As Percentage of Total
Houses and courtyards.....	3,256	290.7	8.9
Parks and public gardens...	2,905	434.5	15.0
Fields and meadows.....	12,346	2,168.5	18.4
Vineyards.....	463	24.8	5.3
Forests.....	4,057	1,692.5	41.7
"Public property" <sup>b</sup> .....	4,783	3,037.5	63.5

<sup>a</sup> For "Area of City" see *Statistisches Jahrbuch der Stadt Wien für das Jahr 1914*, Vol. 32, p. 7; for other data see the same, p. 170. A hectare is 2.47 acres.

<sup>b</sup> Includes streets, canals, the Danube River, railway right-of-way, and the like.

Municipal authorities state that a comparatively small amount of the land which was owned in 1914 was suitable for large-scale building operations. Most of it was either already designated for some other public use or was already built up, or else was situated beyond the zone of convenient transportation.

The amount of land added to the city's holdings during the war was comparatively small. Aside from the so-called public property, the area rose only from 4,609 hectares at the end of 1914 to 4,690 hectares at the end of 1918. Like the land already owned, this area was mostly unsuited to building use. The same thing was

true also of the land which was acquired in the first three years after the war.<sup>9</sup> But in fact the housing policy played a very small part in bringing about these purchases. In this period occurred the purchase of the Krieau, 146.3 hectares, which is a part of the Prater, a public park; also the acquisition of several public institutions which came into the possession of the city as the result of the adjustment of property rights between the province of Lower Austria and the city when they were separated. The asylum Steinhof alone accounted for 140 hectares.

The inception of the new building program in 1923 led naturally to the adoption of a new policy as to land buying. As there was no practicable legal procedure for expropriating owners, everything had to be bought in the open market.<sup>10</sup> Since it was planned to carry on extended building operations over a period of years, it was considered good policy to acquire many building sites in advance of a definite decision as to the areas to be built up next, thus avoiding the risk that the city would have to pay excessive prices for key pieces of ground, or have its plans blocked by refusal of owners to sell.

A federal law of eminent domain of June 14, 1929 made the market situation somewhat more favorable to the city. This law authorizes the city to take over small pieces of land which cannot be built up rationally and

<sup>9</sup> Some of the official literature gives the opposite impression. For instance, an administrative report says:

"In the period after the war the city took advantage of the favorable opportunity of increasing its land holdings to promote its dwelling house policies. Eighty-nine purchases increased the municipal land ownership inclusive of the land owned or administered by the city from the end of 1919 to the end of 1922 by 1,844,155 square meters." (*Die Gemeindeverwaltung der Bundeshauptstadt Wien 1919-22*, p. 646.)

<sup>10</sup> For the years 1919-28 we have found record of only four cases of expropriation, the total amounting to 22.4 hectares.

which hinder the unified development of neighboring pieces of ground owned by the city, even though it might be possible to develop them individually. Under this authority gaps in the building line in built-up streets up to 30 meters long may be taken over, as may also houses ready for demolition and those which serve to block traffic. The law also authorizes the expropriation of unsanitary dwelling houses which require complete reconstruction.

The market situation throughout the period of the Social Democratic control was very favorable to the city as a buyer because of the lack of private building activity, but this advantage would have been lost if it had become known that the city was buying only those plots which it had to have in connection with its immediate plans. Even as it was, landowners sometimes made demands which were considered unreasonable and so caused the abandonment of building plans that were otherwise satisfactory.

Presumably for these reasons, the city began, at the end of 1922, to purchase building land in considerable amounts. The accompanying table shows the number of hectares of land owned by the city as private property, or held in endowment funds under its administration, at the end of each year from 1918 through 1928.<sup>11</sup>

<sup>11</sup> *Die Wohnungspolitik der Gemeinde Wien*, pp. 74-75.

These data do not include (a) "public property," that is the land devoted to streets, the surface of the river, the canals, and similar areas; (b) a considerable amount of land outside the boundaries of the city which is owned by the municipality, chiefly for use in connection with the water supply; (c) a 50 per cent interest in 1,022 hectares of land which since 1927 is under the administration of the Danube Flood Protection Agency, a joint enterprise of the city and the federal government; (d) about 984 acres of the Lobau (an undeveloped area outside the city proper which is used for recreational purposes) which is to go to a fund for the relief of disabled veterans under an arrangement

Year	Owned at End of Year	Increase During Year
1918.....	4,690	...
1919.....	4,856	166
1920.....	4,859	3
1921.....	4,861	2
1922.....	5,040	179
1923.....	5,242	202
1924.....	5,573	331
1925.....	5,705	132
1926.....	5,921	216
1927.....	6,333	412
1928.....	6,411	78

Our data for the years since 1928 are not on a comparable basis with those given in the preceding table, though they are comparable with one another. The following figures are compiled from a booklet issued annually by the statistical office of the city.<sup>12</sup> The data

Year	Land Owned at End of Year (In hectares)
1929 .....	8,206
1930 .....	7,287
1931 .....	7,308
1932 .....	7,309
1933 .....	7,309

probably differ in scope from those shown for 1918-28, first in that they include the tract of 984 hectares in the "Lobau" referred to in the footnote on the preceding page, and second in that they do not include the land

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which was entered into in 1917, and had not been carried out up to 1928. The Lobau area is sometimes figured in. See for example *Das Neue Wien*, Vol. II, p. 60, where the total at the end of 1925 is shown as 6,689 hectares.

<sup>12</sup> *Statistisches Taschenbuch für Wien*. The figure for 1933 was furnished by the statistical office in advance of publication of the booklet.

owned by endowment funds administered by the city government. The 1929 item also must include the land owned by the Danube Flood Protection Agency. If this is correct, the net acquisition of land in 1930 was 103 hectares; in 1931, 21 hectares; and in 1932, one hectare.

#### IV. EXPENDITURES FOR LAND

We noted above that the municipality was able to buy land on very favorable terms because it was almost the only buyer in the market. We present here the information which we have been able to gather concerning the amounts which the city has expended for land and the prices it has paid.

The following table shows, in thousands of schillings, the expenditures for land bought and receipts for land sold for the years 1925-29 inclusive, the only years for which the annual figures are at hand:<sup>13</sup>

Year	Expenditures	Receipts
1925.....	4,150	31
1926.....	6,373	88
1927.....	4,602	114
1928.....	5,373	14
1929.....	11,485	524

For the years from 1919 to 1922 a computation would be meaningless, because the crown was depreciating very rapidly and the dates within the year in which the purchases were made are not known. Danneberg says that for the years 1923-29 the city expended 46,800,000 schillings for land.<sup>14</sup> This would mean 14,800,000 for 1923 and 1924 together. For the years after 1929 we

<sup>13</sup> For 1925 see *Voranschlag der Bundeshauptstadt Wien für das Jahr 1927*, p. 74; for 1926-29 *Rechnungsabschluss der Bundeshauptstadt Wien für das Jahr 1926*, p. 75; 1927, p. 76; 1928, p. 77; 1929, p. 74.

<sup>14</sup> *Das Neue Wien*, 1929, p. 63.

have no definite knowledge, though Danneberg says also that during the years from 1923 to 1930 the city spent 1,780,000 pounds sterling in the purchase of land.<sup>15</sup> This would indicate expenditures in 1930 of 14,800,000 schillings, which seems an impossibly high figure. A report submitted by a committee of the City Council in 1931 stated the amount spent for land in 1930 as 7,615,306 schillings. All these figures include some expenditures for land outside the city and some purchases like that of the valuable building at Operngasse 6 in the Inner City, which have nothing to do with the program of dwelling construction. The figures also include land for institutional use.

As compared with pre-war prices, the city bought land very cheap, according to common report, at from one-seventh to one-tenth the pre-war prices. We have compiled from the city's records information concerning all the purchases that were made in the years from 1919 to 1929 inclusive, omitting those where the total price was less than 250,000 schillings.<sup>16</sup> We were not able to compile data for all the small properties, but we have assembled the information for all the purchases which were made from December 1, 1928 to November 30, 1929.

For the large properties over the whole period, exclusive of the cases where the value of the building played an important part in the determination of the price paid, the average cost was 1.72 schillings per square meter, or about \$1,000 per acre. For all purchases, with no adjustment on account of the price paid for improvements, the

<sup>15</sup> *The New Vienna*, 1930, p. 69.

<sup>16</sup> A few cases were omitted from the computations where either the area was not shown in the records or the property was bought on some basis other than for cash.

average was 2.11 schillings per square meter. Thus in the case of these larger purchases, the price paid for buildings that had to be torn down made no great difference.

However, our study of the complete data for 1928-29 shows that in the case of the properties which sold for less than 250,000 schillings, the buildings played a much bigger part in the price that was paid. The 95 properties that were bought in 1928-29 showed a general average of 3.11 schillings per square meter, while the seven cases where the purchasing price was over 250,000 schillings showed an average of only 1.92 schillings per square meter. If we eliminate 43 purchases in which the value of the buildings was the major factor we get an average of 2.28 schillings per square meter for all the remaining sites, while the five cases where the purchase price was over 250,000 schillings showed an average of only 1.69 schillings per square meter.

All these prices are, of course, only approximate measures of the cost of the land, since they take no account of cash differences paid in connection with trades, nor of expenses other than the nominal purchase price, such as those arising from agreements to meet the moving expenses of the seller, incidental costs of purchasing, loss of taxes, deferred payments on annuities which in a few cases were given in place of cash settlements, nor finally of the cost of demolition of worthless buildings.

The Chamber of Commerce of the city of Vienna estimates that the average value of private ground not used for agriculture within the limits of the city is about 10 schillings per square meter.<sup>37</sup> Our figures indicate that the city paid an average of 1.7 schillings per square

<sup>37</sup> *Wirtschaftliche Nachrichten*, Vol. VII, No. 13, p. 68.

meter. However, the average for the whole city is brought up by the relatively high value of business sites in the Inner City, and comparatively little land of this character was bought by the city.

#### V. RENTS IN MUNICIPAL BUILDINGS

The city has aimed all through to keep its rents on a parity with those charged for comparable space in old buildings, in spite of the fact that the rent restriction law does not apply to new construction. It is felt that if the rents in the new buildings were put above the level of the rents in the old ones, the disparity would cause undesirable inequalities of real income between tenants of the old and the new buildings. Consequently, the policy is to write off completely the investment in a municipal building on the day that it passes out of the control of the Construction Division of the Housing Bureau, and to base the rents entirely on costs of administration and maintenance.

The rent is determined by adding together the operating expenses for which house owners are responsible (water consumption, cleaning of pipes, sweeping of chimneys, lighting of halls, insurance), the expense for the maintenance of the building and the gardens, and the cost of management. No interest is charged for the capital invested in the building. The repair costs are not the current expenditures but flat sums estimated to cover average costs. Since new buildings naturally do not require any considerable amount of repair a reserve fund is accumulated for the higher costs expected in the future.

The rates are intended to cover total operating costs for all buildings, not the individual costs for the individual building. Higher rates are charged where costs

are unusually high because of a large amount of court and garden space, but account is also taken of differences of desirability which are not reflected in costs. Thus the rents are adjusted according to the location of the building, distance from a street railway, distance from the Inner City, and equipment.

The rent ranges between 11 groschen (1.5 cents) and 30 groschen per square meter per month. The maximum rate of 30 groschen, however, applies only to a few dwellings near the Inner City, which are equipped with private bathrooms and servants' rooms. The minimum rate of 11 groschen applies to certain buildings erected in the early period of construction which are of an inferior standard.<sup>18</sup> For an overwhelming majority of the buildings, the rate is between 15 and 20 groschen per month, or about 85 cents for a dwelling consisting of living room, sleeping chamber, and kitchen. The total amount of rent collected in 1929 was 3,447,106 schillings. The number of apartments at the beginning of the year was 28,346 and at the end of the year 33,021. Assuming that the average number for the year was an average of these two figures, or 30,683, the average rent per dwelling figures out at 112 schillings, or \$16 per year. This is without any allowance for the rental of business locations, which is not reported separately. Of these there were 1,309 at the beginning of the year, and 1,547 at the end. If we assume that these were rented at the same average rate as were the dwellings, the average rental drops to 107 schillings, or \$14 per year.

In addition there is the house building tax. This is charged at the same rates as are charged on private property similarly situated and similarly equipped. But

<sup>18</sup> *Die Wohnungspolitik der Gemeinde Wien*, p. 70. Compare p. 62.

since in the past there were no small dwellings of the sort that are being built by the city, the middle-class dwelling must be brought into the comparison with respect to equipment. The tax in general does not exceed 1.5 schillings per month; in the larger dwellings it amounts to from 2 to 2.5 schillings. We shall not be far wrong if we figure the total expense for rent and tax for the predominant type of dwelling consisting of a small hall, kitchen, and a full-sized room, all directly lighted and ventilated, with hardwood floors, white enameled doors and gas stove furnished by the city, electric light, water, and toilet in the dwelling, at \$1.50 per month.

#### VI. FINANCING THE HOUSING PROGRAM

One of the most controversial points in the whole program relates to the choice between loans and current taxation as the means of financing. In fact, many bitter opponents of the program which has been carried out by the Social Democratic party state they would have approved of it if the financing had been done to a larger extent by loans.

In general the policy of the city government has been to finance the entire program from the yield of current taxation, though in 1922 and 1923 loans were floated for the purpose. The principal reason for this policy as it is stated by the city administration relates to the policy of charging no rent beyond maintenance and repair. This policy would not necessarily be inconsistent with a program of financing on loans, but it is believed that if construction were financed heavily by loans there would be much greater pressure to include the service of the loans in the sums to be raised out of rents.

Nominally the housing program is financed by the dwelling construction tax (*Wohnbausteu*er) which is the

successor to the old house rent tax. There is this important difference between the two taxes, however, that the pre-war house rent tax, including a municipal surcharge, was a flat tax of 40.2 per cent, whereas the house construction tax is very sharply graduated. The smallest dwellings, those with pre-war rentals of 1,200 crowns (about \$240) or less per year pay from 2.08 to 2.31 per cent of the pre-war rent. Dwellings with a pre-war rental of from 1,201 to 3,000 crowns pay from 2.64 to 3.32 per cent. The rates scale up to a maximum of 37.18 per cent. The small dwellings, which make up more than four-fifths of the total number, pay only one-fourth of the total tax, while large dwellings (which make up 3 per cent of the total number) and business locations pay over 60 per cent of the total. Even at the maximum, however, the rate is not as high as the rate assessed against all rents under the pre-war rental tax.<sup>19</sup> New dwellings, including those built by the city, are subject to the tax at the same rate as old dwellings, the rate being estimated by comparison with similar quarters for which the pre-war rents are known.

It would be a mistake to infer, however, from the emphasis given to the dwelling house tax in current discussion, that the building operations are financed entirely out of this tax. The amount which has been expended for the construction of dwellings is much more than the yield of the dwelling construction tax. The difference has been made up out of the general revenues of the city.

<sup>19</sup> It is to be noted, however, that since the tax is based on the pre-war rent, it may represent a higher percentage of actual rental value of properties under present-day economic and social conditions. The population of the city has declined and its prosperity has declined still more, while the number of dwellings has been increased by more than 15 per cent. Consequently the pre-war rentals may be higher than could now be obtained in a free market, in spite of the rise of building costs.

The accompanying table, in schillings, compares the total expenditure on dwellings for recent years with the yield of the dwelling house tax.<sup>20</sup>

Year	House Construc- tion Tax	Investment in Hous- ing Facilities
1928.....	36,193,553	95,564,461
1929.....	36,403,379	92,307,657
1930.....	36,257,648	96,488,495
1931.....	36,385,365	82,424,895
1932.....	35,800,000	47,795,160
1933.....	47,000,000	42,072,400

This table makes it clear that the inscription, "Erected by the City of Vienna from the Dwelling House Tax," which is placed on municipal buildings, is somewhat misleading. The buildings are a considerable charge against the general revenues of the city. Among these general revenues, by far the most important items are the share of the city in funds distributed by the federal government, and the welfare tax (*Fürsorgeabgabe*), which is a flat assessment of 4 per cent on all payrolls. Originally this tax was designed to take care of the expenditures of the city for relief and social betterment. However, though the expenditures for these purposes have been very heavy, the yield from the "welfare" tax has been sufficient to leave a considerable sum for other purposes. For 1928 the yield of the dwelling house tax was 36,193,553 schillings, while the yield of the welfare tax was 76,165,098, and the share of the city in federal taxes 136,781,531 schillings. Expenditures in that year were 95,564,461 schillings for construction of dwellings, and 5,081,777 schillings for administration.

<sup>20</sup> From *Statistisches Taschenbuch für Wien* 1929-32. Figures for 1932 and 1933 are budgeted items.

We noted above that in 1922 and 1923 the housing program was financed to a considerable extent by loans. These loans at the end of 1933 constituted practically the entire debt of the city. The total amount of the issues was 186 billion crowns, or about two and a half million dollars at the exchange rates of 1923. The interest varies on the different issues of the loan and averages about 5.9 per cent. There was no amortization for the first ten years. Interest and amortization are charges against the proceeds of the dwelling house tax.

## CHAPTER VI

### ADMINISTRATION

The administration of the housing properties of the city, including the old houses which have been bought by the city or are the property of municipal trust funds, is the responsibility of the Housing Bureau. The only exception is the administration of the houses in the so-called garden settlements, which is entrusted to co-operative societies made up of the tenants. The major tasks of the Housing Bureau are the allocation of the dwellings, the collection of rents, and the control of repairs. The municipal architectural office is responsible for decisions on technical questions and for the actual repair operations.

#### I. ALLOCATION OF DWELLINGS

By far the most difficult part of the administration of municipal buildings is the allocation of the space among applicants. Partly because there is still no reserve of vacant apartments in the city, and partly because the new dwellings are much more attractive than old ones with similar rents, the number of applicants is far larger than can be accommodated. So long as this is the case, and so long as the commercial principle of allocation to the best-paying tenants is rejected, even the most careful distribution of space is certain to cause much dissatisfaction. Nobody can afford to give up his apartment, hence the only outlet for dissatisfaction is criticism. Difficulties which seem like trifles in the case of a private owner become grounds for political agitation. It is inevitable that the officials who have to assign the dwellings will be under constant suspicion of favoritism.

An attempt is made to standardize procedure in the allocation of dwellings, by the use of a "point system" of classifying applicants according to urgency of needs. This system was adopted in 1922, primarily for use in connection with the allocation of the private dwellings which came under the control of the Housing Bureau through the operation of the requisition law. The points were awarded on the basis of the following schedule:

POINT SYSTEM OF CLASSIFYING APPLICANTS FOR  
DWELLINGS

	Points
Austrian citizenship .....	1
Domicile in Vienna .....	1
Marital status:	
Married less than one year .....	1
Married or living together as husband and wife for more than one year .....	2
Each child:	
Under 14 years of age .....	1
Over 14 years of age .....	2
Residence in Vienna:	
Since birth .....	4
Since August 1, 1914 .....	3
For more than one year .....	1
Legally binding notification to vacate present residence .....	5
Unfitness of present dwelling for continued oc- cupancy .....	5
Disability:	
"Of 60 per cent or more" .....	1
Complete .....	5
Pregnancy, more than six months advanced . . . .	1
Illness which will be made materially worse by continuing to live in present dwelling .....	1
Sub-tenancy (not with parents or parents-in-law) .	2
Each member of the family who sleeps away from home and has no room of his own .....	2

Household separated under such circumstances as to make it impossible to live with parents or parents-in-law.....	2
Overcrowding: for each person too many in a dwelling <sup>a</sup> .....	1
Lack of kitchen.....	1
Applicant the principal tenant of a dwelling fit for occupancy which is not overcrowded, or has only one excess person.....	-10
Sub-tenancy where rooms are fit for occupancy and not overcrowded.....	- 5

<sup>a</sup> A "living room" (*Zimmer*) is considered to be overcrowded if occupied by more than three adults or two adults and two children; a sleeping chamber (*Kabinett*), if occupied by more than two adults or one adult and two children under ten years of age. Overcrowding is recognized in the case of the principal tenant only if the persons to be counted are members of the same family circle. Likewise in the case of sub-tenants, overcrowding is only computed with respect to the number of persons in the sub-tenant's own family circle.

Persons with 10 or more points are put in Class I, that is, are considered to be in urgent need of dwellings. Those with from five to nine points are put in Class II, and those with less than five points, in Class III. Listing in the third class is practically equivalent to rejection of the application. Single persons and those who have been married less than a year are excluded from Class I, even if the total number of points awarded is 10 or more. In exceptional cases, names may be transferred to a different class than that in which the application of the point system places them.

Applications which are placed in the first group are given more careful scrutiny and the most urgent cases separated out as Class I-a. This includes nearly all applicants who are homeless, not through their own fault, and those who occupy rooms which are being condemned on architectural or sanitary grounds.

The number of applicants rated first class at the end of the years 1922-25 and 1930 was as follows:<sup>1</sup>

1922 .....	15,039
1923 .....	19,503
1924 .....	20,800
1925 .....	16,448
1930 (November) .....	8,075

In 1925 the qualifications were modified so that weight was given to distance of residence from place of work, and to professional need for a different type of dwelling. How rigidly the actual allocation follows the theoretical rules it is difficult for an outsider to judge.<sup>2</sup>

The administration lays special emphasis on the exclusion of middlemen from participation in the assignment of dwellings. The following statement on this subject was issued in 1931:

TO ALL APPLICANTS FOR ASSIGNMENT OF DWELLINGS AND FOR EXCHANGE OF DWELLINGS IN MUNICIPAL DWELLING HOUSES

Persons who are applicants for dwellings and those who wish to make exchanges in municipal dwellings frequently apply to the house inspectors, to the tenants' representatives, and to other persons for assistance in presenting their cases before the housing office.

The Municipal Dwelling Administration gives notice that house inspectors and caretakers are strictly forbidden either to co-operate in these efforts, or to discourage them. The employment of other negotiators is also forbidden. Before the Housing Bureau, every applicant must plead his own cause. Tenants in the municipal dwelling houses cannot be treated differently

<sup>1</sup> For 1922-25 from *Das Wohnungswesen in Oesterreich*, p. 68; for 1930, from Ernest L. Harris, "Workingmen's Housing in Vienna," *Monthly Labor Review*, Vol. 32, May 1931, p. 16.

<sup>2</sup> One case came to our personal attention where two adults, six children, and four canaries inhabited one room and a kitchen, in a very bad building erected before 1860. The family had an official letter advising them of their assignment to the list of preferred applicants for a change of dwelling, dated more than five years previously.

from tenants in private dwellings, and the Housing Bureau cannot give preferred treatment to any applicant. Correspondence concerning housing matters is not to be addressed to individuals, but only to the appropriate section of the administration.<sup>3</sup>

The policy here outlined is undoubtedly wise, for abuses might easily arise from the intervention of trade union officials, political bosses, and others who might have, or claim to have, influence with the housing authorities.

The criticism most frequently offered against the administration is that Social Democrats are favored in the allocation of dwellings. For instance an Austrian critic says: "The tenants are everywhere Social Democrats with the exception of a dwindling residue of 1 to 8 per cent."<sup>4</sup> We have been told by numerous reliable informants that it has been almost impossible for any one but a Social Democrat to get an apartment, and that active party workers were favored over nominal members of the party. The housing authorities vigorously deny this and claim that others than Social Democrats who move into the municipal dwelling houses tend to become Social Democrats because of their appreciation of what the municipality has done; hence that if they did allow party considerations to control, they would prefer to bring in non-Socialists as a way of educating them in the advantages of socialism.<sup>5</sup>

To determine the facts accurately would have required a very extensive field study. Some sample election returns which were furnished us indicated that the percentage of Social Democratic voters was not higher in

<sup>3</sup> *Die Wohnung*, October 1931, Vol. II, p. 141.

<sup>4</sup> Eugene M. Kogon, "Socialist Housing in Vienna," *The Commonwealth*, Vol. XIV, 1931, p. 64. Kogon cites no evidence for his figures.

<sup>5</sup> There may be some selection also from the other side, since active political opponents of the Social Democratic party might feel reluctant to apply for municipal dwellings, thus laying themselves open to the charge of taking private advantage of a public policy which they oppose.

municipal apartments than in neighboring private dwellings, but we were not able to carry the investigation along this line far enough to make it conclusive. In this connection it is to be noted that since in Vienna two-thirds of the voters, and at least three-fourths of the inhabitants of the small dwellings, are Social Democrats, or were so before 1934, an impartial distribution would give the members of that party a great majority of the apartments.

It appears to us that even if the Social Democratic party has not had a systematic policy of exclusion of political opponents from the buildings, it would be impossible to exclude personal and party considerations from the job of allocating an average of 100 new dwellings a week, to say nothing of exchanges and re-assignments. We doubt very much if the task of allocation has been performed in Vienna very differently from the way it would have been performed in an American city. Outside Utopia one cannot anticipate that the public administration of extensive properties occupied by voters can be kept free from partisanship.<sup>6</sup>

Some complaints are also made that for reasons of party politics the Housing Bureau allocates rooms for other than dwelling purposes. A leader of the Christian Socialist group in the Town Council in 1931 publicly criticized the administration severely for using the money designated for housing purposes to build assembly halls

<sup>6</sup> It may be of interest to note that the same criticism is made against the Christian Socialist administration of the city of Innsbruck, which also administers some municipal houses. The organ of the Austrian Association of House and Land Owners in 1931 published an appeal over the signature of the agricultural block of the legislature of Tirol, petitioning the municipal officials to give primary consideration to natives of Tirol in assigning the dwellings. "Party relationships," it is urged, "ought not to be the only consideration." (*Der Haus- und Grundbesitzer*, Oct. 4, 1931.)

for the use of the Social Democratic party, and for assigning to trade unions for office purposes space that would otherwise be available for dwellings.

## II. DENSITY OF OCCUPANCY

In connection with the budget for 1931 the head of the Housing Bureau, *Stadtrat* Weber, stated that the average occupancy of all the dwellings in Vienna was 3.2 persons and the average for the city apartment was four persons. The city dwellings, he said, are rented almost entirely to families with children. He showed that the families which were assigned dwellings in the first eleven months of 1930 comprised 15,227 adults and 6,904 children. As there were 6,040 dwellings, this figured out an average of 3.66 persons to the dwelling.

We were able to compile statistics on the occupancy of 36,527 municipal apartments. We found the average occupancy of these apartments to be 3.51 persons. The difference between our average and that computed by the Housing Bureau for 1930 is partly accounted for by the fact that in our computation a few empty dwellings were included. Clearly, however, Weber's estimate of an average of four persons to the dwelling is too high, even though the occupancy of the old dwellings which the city owns of the one-family houses in the so-called garden settlements is probably somewhat higher than in the new apartment buildings.

There is no question that the average occupancy of the dwellings in the city apartments is higher than the average in the old dwellings not controlled by the municipality, although sub-letting is not as a rule permitted. This is to be expected, in view of the preference given large families in the allocation of dwellings. It does not necessarily mean that the city dwellings are

more crowded, since their average floor space is in the neighborhood of 40 square meters, while the average in the old dwellings is only about 30 square meters—in spite of the fact that the latter include practically all the larger apartments. Our attention was called to cases of occupancy by two persons of the apartments intended for only one.

### III. ROUTINE ADMINISTRATION

The administration of the buildings is highly centralized. Direct oversight of the house and collection of rents are entrusted to caretakers who live in the buildings, but these caretakers have no authority to make regulations or decide any question of policy. The caretakers are supervised by the building inspectors. The inspectors are responsible also for the maintenance of the courts, gardens, and sidewalks.

The city has succeeded to the pre-war position of the landlord, and has absolute control of utilization of the buildings and an unlimited right to terminate the rental contracts. The tenants have elected representatives, but these are only advisory; they have no authority in the management of the buildings. Opponents of the housing program have criticized this autocratic arrangement not so much for its actual as for its potential effects on the freedom of the tenant. Thus Vas says:

In these dwellings the tenant lives under healthful conditions, he lives cheaply, he saves time and work; in short, as tenement houses they are ideal—the dream of many a housing reformer is realized. But solicitude has gone too far. Individual needs cannot be satisfied. Literally, every nail driven in the wall is controlled by the city government. Every individual rule may be approved, but all the rules taken together tend to destroy the satisfaction of living in a building where everything is done mechanically and the bureaucracy, because no rents are

charged, is in a position to exercise the most minute control in every part of every dwelling.<sup>7</sup>

This of course is a criticism, not so much of the administration of the buildings, as of the whole modern system of living in compact apartments, public or private. It is hardly conceivable that thousands of people can be packed together at the rate of one person to every 120 square feet of floor space, without a fairly rigid system of centralized control.

#### IV. PROMOTION OF USE OF BATHING FACILITIES

Our most serious reservation as to the wisdom of the city's management of the buildings relates to its failure to bring about more complete utilization of the bathing facilities. We have collected data concerning the utilization, in 1931, of the centralized bathing rooms which are enumerated in the official statistics, 64 in all. In these buildings there was on the average one tub for each 165 persons and one shower for each 127. Although this equipment seems rather scanty, the facilities were utilized at much less than their full capacity. If we figure the monthly capacity at 500 tub baths per tub and 750 shower baths per shower, the theoretical capacity works out at 167,000 tub baths and 325,500 shower baths per month. The actual utilization was only a little more than this for the whole year—169,840 tub baths, and 437,054 shower baths, that is, an average of 11 baths per person for the year.

This scanty utilization may be due to any or all of several causes. First, in the majority of cases the baths were closed for several days in the week; on Sundays and holidays they were open only in the morning. This

<sup>7</sup> *Die Wiener Wohnungszwangswirtschaft*, p. 91.

practice, however, is not necessarily a cause of the low utilization—it may be merely a reasonable measure of economy in view of the low utilization.

Second, the fees for use of the baths are rather high—perhaps because of an effort to spread the overhead costs over a relatively small number of users. The rates in effect on March 1, 1932 were 1 schilling (14 cents) for a tub bath, and 40 groschen (5.6 cents) for a shower.<sup>8</sup>

Third, on account of the great size of many of these apartment buildings many dwellings are at an inconvenient distance from the bathing rooms. The Karl Marx Hof, which is three-fifths of a mile long, has two bathing rooms (and a total of 20 tubs and 30 showers). It seems likely that a good many occupants are reluctant to go down four or five flights of stairs and along several hundred yards of hallway, perhaps across an open court, in order to reach a bathtub.

Fourth, use of public bathing establishments is a well-established Viennese custom and it is probable that a good many occupants of the buildings, since they have to make a journey to reach a bath anyway, prefer to use them.<sup>9</sup> On the other hand our statistics probably cover some use of the baths by outsiders.

While an accurate appraisal of the policy of the administration would require access to cost data which separate the overhead from the direct operating costs of bathing establishments, it is difficult to resist the conclusion that a lower scale of fees would not only increase

<sup>8</sup> These prices, according to an official statement, are lower than those charged in the public bathing establishments. (*Die Wohnung*, Vol. III, Pt. 4, p. 55.) A case has come to our attention, however, in which fees as low as 18 groschen were charged for shower baths in public bathing establishments.

<sup>9</sup> The public baths, however, report only about five to six baths per capita per year.

revenue without correspondingly increasing the expense, but would effect a material improvement in the standard of living of the occupants.

### V. COST OF MANAGEMENT

Opinions differ as to the efficiency and economy with which the buildings were managed by the municipal Housing Bureau. The accompanying table shows the operating revenues and the expenses of management of municipal apartment buildings and cottage settle-

OPERATING REVENUES AND EXPENSES OF MUNICIPAL APARTMENT BUILDINGS  
AND COTTAGE SETTLEMENTS, 1929<sup>a</sup>  
(In schillings)

Item	Apartment Buildings	Cottage Settlements
<b>INCOME</b> .....	<b>4,601,541</b>	<b>140,696</b>
Rent .....	3,447,106	94,694
Laundries and baths .....	869,119	817
Miscellaneous income .....	172,169	45,185
Interest on the reserve for repairs .....	113,147	—
<b>EXPENDITURES</b> .....	<b>4,634,938</b>	<b>64,253</b>
Administration:		
Wages and salaries .....	388,659	15,474
Commissions and fees .....	59,858	2,383
Pensions .....	86,293	3,436
Supplies .....	62,414	2,470
Operation:		
Taxes and water rates .....	432,385	4,897
Sewer cleaning .....	70,227	4,530
Lighting of stairways, halls, and courts .....	327,444	734
Chimney cleaning .....	33,102	2,569
Insurance premiums .....	107,273	6,246
Laundries and baths .....	875,579	817
Miscellaneous .....	80,224	18,293
Maintenance .....	879,041	2,404
Reserve for repairs .....	1,232,389	—
<b>NET INCOME OR DEFICIT</b> .....	<b>—33,397</b>	<b>+76,443</b>

<sup>a</sup> See *Voranschlag der Bundeshauptstadt Wien für das Jahr 1929*, p. 201; *Rechnungsabschluss der Bundeshauptstadt Wien für das Jahr 1928*, pp. 213, 215; the same, 1929, pp. 209, 211.

ments as reported for 1929. The data shown for apartments relate only to the dwellings which have been constructed by the city, of which there were 28,346 at the beginning and 33,105 at the end of the year. Data for cottage settlements cover those built by the co-operative associations, as well as those built by the city, but the figures do not include the expenses of management which the co-operative associations incur. The number of such cottages at the beginning of the year was 3,840, and at the end of the year 4,084. These figures are not entirely conclusive since we do not know how accurately the expenses of administration of the housing properties are separated from the other municipal expenses.<sup>10</sup>

Some light is thrown on the question, however, by the number of persons employed by the housing administration. The accompanying table shows the personnel employed on the dates indicated.

PERSONNEL OF THE HOUSING BUREAU OF THE CITY OF VIENNA

Personnel <sup>a</sup>	Oct. 1, 1924	Jan. 1, 1926	Dec. 31, 1926	Aug. 1,			
				1927	1928	1929	1930
Officials and clerical employees.....	24	33	38	45	47	49	49
House inspectors.....	—	3	12	16	16	20	21
Mechanics.....	—	—	13	17	22	31	38
Laundress.....	—	—	—	—	—	1	1

<sup>a</sup> See *Voranschlag der Bundeshauptstadt Wien für das Jahr 1927*, p. 193; the same, 1930, p. 205; the same, 1931, p. 219; *Rechnungsabschluss für 1926*, p. 193.

The office also managed at the end of the year 7,500 other dwellings in old houses and barracks, so that the office force in 1930 numbered less than one per 1,000 tenants.

<sup>10</sup> Compare Vas, *Die Wiener Wohnungszwangswirtschaft*, p. 72.

## CHAPTER VII

### CONCLUSIONS

In passing judgment on the policies which we have sketched, it is important that we keep clear the distinction between emergency relief and permanent social reform. This program is a housing reform, not a stop-gap or emergency measure. There was an emergency situation at the start, but that was not the real reason for the program; it was rather a favorable opportunity to put over a program which probably was intended from the start to be as permanent as the Social Democratic party's control of the city. The objective is substantially free housing for the individual at community cost. This is clearly stated in an official publication, as follows:

There must be no pause. The city's building activity must continue. After the second building program a third and fourth will follow. It has become a permanent task of the city to build wholesome dwellings and make them accessible to the broad masses of the population. The city will not go lame in the fulfillment of this great responsibility.<sup>1</sup>

The housing program of Vienna may be appraised from two totally different standpoints; namely, the soundness of the basic policy, and the way in which the policy was carried out. We shall defer to Section V of this chapter consideration of the more fundamental issues, taking up first several points of detail.

#### I. COTTAGE SETTLEMENTS VERSUS APARTMENT BUILDINGS

The marked preference of the city administration for apartment houses over individual family houses has been

<sup>1</sup> *Die Wohnungspolitik der Gemeinde Wien*, p. 89. Compare above, pp. 1-2.

the subject of more controversy than any other feature of the program except perhaps the decision to finance the buildings out of taxes rather than loans—though to be sure the issue apparently looms larger in the eyes of foreign critics than it does in those of the Viennese themselves.

The city government has defended its policy almost entirely on the ground of economy. It has shown without difficulty that it was impossible, with the means at the city's disposal, to go to the extreme of building new satellite towns completely detached from the city and each with its own community life. Merely to have established proper transportation facilities connecting such satellite cities with the main city would have used up a large fraction of the available funds. The real question is whether it would have been practicable to build 30,000 or 40,000 more suburban cottages similar to those which were actually built, and a correspondingly smaller number of apartment dwellings. And if so would it have been a better plan?

The official defense of the city's policy is as follows:

We have found that if we utilize 50 per cent of a building site for the erection of an apartment building we need only 30 square meters of ground for each dwelling; hence the cost of land is much lower than if we built more cottages. [It will be remembered that the amount of land allocated to each cottage was at first 300 to 350 square meters, then 200 and finally 120]. . . . Moreover, there are material economies in the erection of multi-story dwellings directly adjacent to existing dwellings. The ancillary costs consist only of the building of short streets and moderate expenditures in connecting up with the existing network of sewers, water- and gas-pipes and electric lines. Finally, it has nearly always been possible to get along with the school buildings that were already available.<sup>2</sup>

<sup>2</sup> *Das Neue Wien*, Vol. III, pp. 52-53.

This argument is not wholly conclusive, since it omits reference to certain economies of construction which are made possible by building small cottages. For instance, the walls of the high buildings must be much stronger, the foundations deeper, and the stairways wider. On the whole, however, it is safe to say that there was some economy of construction in the apartment type of dwelling, but the difference was not great; probably no more than was covered by the 15 per cent contribution which for several years was required of settlers in the cottage communities.<sup>3</sup>

The cost of ground is a significant item with the dwellings situated in the densely settled sections of the city, but in the case of the larger sites in the outlying districts, where most of the larger apartment houses have been put, the added cost for land enough to build cottages would apparently not be more than 2 per cent.<sup>4</sup> The absence of competition in building has so reduced land values that they have ceased to be an important item.

The real added cost in building cottage settlements is the cost of expanding the city's network of public utility facilities—transportation, light, water, and sewage disposal. And the cost of providing these utilities cannot be estimated on the basis of the actual costs in cottage developments, because the costs would have gone up more than proportionately if the number of cottages had been

<sup>3</sup> It cannot be assumed, however, that if the city had concentrated its efforts on building cottages instead of apartments it could have found a sufficient number of tenants who were able and willing to contribute 15 per cent of the cost in cash or in labor.

<sup>4</sup> Counting 30 square meters per dwelling for an apartment, and 120 square meters for a cottage, and valuing the land at 3 schillings per square meter, the difference in land cost is 270 schillings, out of a total cost of about 13,000 schillings, or a little over 2 per cent. But the actual utilization of space in the larger apartment house averages less than 50 per cent, so that actually more than 40 square meters is used per dwelling.

several times greater, because of the wider area which would have had to be covered.

Aside from financial considerations, two other factors are said to have played a part in the decision—local tradition and preference, and political strategy. As to the first point, the apartment house is the traditional Viennese residence, and is unquestionably preferred over the garden cottages by a considerable proportion of the population. For many families, especially those with children, the possession of a bit of ground and a garden of flowers or vegetables is a most precious asset; but there must be thousands of others to whom a Sunday tramp over the Leopoldberg has more recreational appeal than an afternoon in the onion bed.<sup>5</sup> And the suburban cottage gives much less ready access than does the apartment house to the work-place by day and the café by night.

It is urged by opponents of the city's plan that the administrative preference for the apartment building is political—the cottagers make poor socialists. The tenant works in his garden when he ought to be attending a political gathering or a trade union meeting, and his respect for private property is enhanced by the equity he has earned in his home and the direct relationship he sees between the work he puts into his garden and the product he takes out of it. Apartment house life encourages restriction of the size of the family and develops community action and community thinking.<sup>6</sup>

The decision one reaches on this question depends

<sup>5</sup> One tenant of an apartment house, a former suburban "colonist," remarked to us that he was "no longer a slave to his garden."

<sup>6</sup> However, the testimony of the renegade "colonist" whom we quoted in the preceding footnote was to the effect that he felt much more pressure to join in a political rally when he lived in a settlement in which everybody knew everybody than when he lived in an apartment dwelling where nobody knew or cared about anybody else.

chiefly on his assumptions. If we start with the assumption that the cultural advantage is all with the cottage and garden we shall find no conclusive evidence that it was impossible to provide more cottages and gardens. It is evident that the administration's appreciation of the social and cultural advantages of cottages was not strong enough to stimulate any strenuous search for a way to overcome the financial handicaps of the suburban colonies.<sup>7</sup>

But this is not strange. As was pointed out in Chapter I, the people of Vienna are very fortunately situated with respect to opportunities for outdoor recreation in forests and on the hills. The city administration was already trying to educate its constituency to higher standards of sanitation and housing comfort than they had ever known before. It would have been a tremendous undertaking for them to try to make suburbanites out of 50,000 or 100,000 people who had been born and brought up under such conditions as we have described in Chapter I.

Finally, it may be worth while to remind American readers that the whole housing problem is very different in a community which lacks the equipment of automobiles and radios which is characteristic of American cities. The automobile will some day make it easier to live in the suburbs of Vienna, and the radio will make it more difficult to live in the apartment houses.

In comparing the cost of construction of apartment buildings and suburban cottages we have omitted refer-

<sup>7</sup> For instance, it might have been feasible to develop a two-family type of house which would utilize no more than 60 or 80 square meters to the dwelling and would still give the occupants the advantage of purer air and more quiet, and at least a limited opportunity to dig in the earth.

ence to the factor of durability. The large apartment buildings are necessarily more solidly constructed, and will undoubtedly have a much longer life. Hence, if depreciation is allowed for in figuring shelter costs, and no allowance is made for probable obsolescence, the financial advantage must be rather decisively with the apartment buildings. How much weight should be given to this factor we consider in the next section.

## II. PERMANENT VERSUS TEMPORARY STRUCTURES

The existence of an urgent demand for more and better homes does not of itself justify a policy of building permanent modern structures. With the funds available the housing shortage could have been relieved more quickly, without sacrificing the improved standards of health and comfort, by devoting the available resources to the construction of a larger number of plain temporary one- or two-story brick or hollow tile dwellings of a barracks type, than by the erection of structures which if permitted will stand for two centuries. Some added investment for land, and for transportation and other utilities, would have been necessary; but not as much as the cottage settlement plan demanded, and certainly not enough to offset the saving in building costs.

Which policy would have been wiser in the long run is largely a question of the future population growth and economic status of the city. As to prospective population, it is clear that within a few years the forces which have been reducing the juvenile population of Vienna will show themselves in a sharp decline in the number of marriages. Then, unless there is a big increase in immigration, the number of households will decline. As was pointed out in Chapter III, the somewhat anomalous coincidence of a declining population and an increasing

number of households is accounted for largely by the fact that the shrinkage in the population has so far affected the numbers only of children and aged persons. In 1923 there were in Vienna practically three times as many 20-year-olds as 5-year-olds. The whole number of children from 4 to 6 years of age in 1923 was 77,000, while the number of persons aged 24 to 28 years was over 173,000.

Beyond question, within a few years the marriage rate will drop in accordance with the tremendously reduced number of persons who will be coming on to marriageable age. It is true that after 1920 the number of births showed some recovery, but it did not rise to anything like the pre-war level—there were 15,200 births in 1932 as compared with an average of 46,000 in 1908-10. These 15,200 births foreshadow less than half as many new households to be formed by marriages 20 years hence as are being formed now. In fact, during the post-war era marriages have been outnumbering births. Clearly, demographic conditions point to a rapid decline in the need for homes in Vienna.

As to the economic outlook, forecasting is more difficult. Presumably the city government could hardly be expected to make plans on the assumption that it is administering the affairs of a doomed community. However, there is not, and has not been since the war, any basis for an expectation of an excess of inward over outward migration sufficient to overcome the natural decline of the population.

The well-known discrepancy between the size of the city and the size of the rural area of Austria which it serves, is, of course, not absolutely conclusive. But under present-day political conditions, national boundaries are more and more becoming economic barriers. It would

perhaps be unsafe to count on an indefinite continuation of the current tide of extreme nationalism—but even if tariff barriers and other obstructions to the free flow of trade were removed, the future of Vienna does not appear bright. The possibility of building up such a city as Vienna in its environment arose in large part from the magnitude of the political and administrative services which were concentrated around the “imperial and royal” court. This political work has been decentralized, and nothing has come in to take its place. Vienna has no pronounced natural advantage as a center either of industry or of trade. To a very large extent it is living on tradition and on the momentum of industries which, if they were not there, it could not attract under present conditions.

We see no reason to believe, therefore, that the marked decline of population which present birth rates and death rates foreshadow will be offset by any greater inward trend of migration than has shown itself in recent years. And this has not been sufficient to maintain the population, even with a birth rate which on account of the age distribution of the population is far higher than the rate indicated by the present fecundity of the population.

It will be suggested, however, that the improvement in the qualitative standards of Vienna housing was sufficient to justify the whole program, even though the quantitative problem was temporary; that if and as the population of the city shrinks over the next two decades, a rational municipal policy will involve the demolition of so many more old bad dwellings, so that there will be a continuing need for the present, and much more than the present, equipment of new and modern dwellings. The professed intention of the city to continue

building indefinitely at the 1923-31 rate was defended by administration representatives in this way.

Viewed from this angle, however, the case is not a strong one. The enormous investment which is tied up in the new buildings will indeed make it possible to abandon more old dwellings and thereby raise the average standard of the city, but the very permanence of the structures perpetuates a standard which, though high by the past tradition of Vienna, is low by the tradition and standards of most of the civilized world.

The writer's somewhat tentative conclusion is in favor of the alternative suggested in the opening paragraph of this section. The real emergency was temporary; in the long run, if Vienna survived as a great city, newer and better housing standards were bound to develop; if the city did not so survive, temporary structures would suffice. In the short run, the same expenditure of money in the building of barracks would have emptied a much larger number of old bad dwellings, and the city would not have been committed for an indefinite future to the conspicuous deficiencies of the present standard—the long upward climb to the five-story dwelling and the downward climb to the bathroom; the lack of central heating; and the extreme compression of the population.

### III. SIZE AND QUALITY OF APARTMENT DWELLINGS

Once agreement had been reached on the idea of building large numbers of apartments to be rented at low rates, the most difficult decision which remained related to the size and quality of the dwellings. It was necessary to compromise between two objectives—to furnish dwellings to as many people as possible, and to raise the housing standards of the city. Obviously, these

objectives conflicted directly, for the higher the standard of quality, the smaller the number of houses that could be built.

Definite and very important improvements over the existing standards of the community were made. The large courtyards, the outside light in every inhabited room, the individual toilet in every dwelling; and the hardwood floors constitute a major improvement over the previous living arrangements of Vienna. More houses could have been built if these standards had not been insisted upon—and the waiting lists have been long throughout the experiment.

On the other hand, the small size of the apartments, the lack of elevators even in six-story buildings, the lack of individual bathrooms, and the complete absence of central heating have been severely criticized. Fewer houses could have been built if the standard adopted had included these things.

In a market economy, costs compared with prospective salability of the space, affords a rough criterion of the cost of the housing which is to be built, but this test was excluded. The solution had to be somewhat arbitrary; the writer believes that the standard of comfort actually set was a reasonable one, all things considered.

#### IV. TAXES VERSUS LOANS

The issue between taxes and loans as a means of financing the house building operations is in considerable part a camouflaged version of the basic issue as to the nature of the whole program, which is discussed in Section V of this chapter. For, if the buildings had been financed out of loans, the increased burden of interest and amortization would either have created irresistible pressure to put into the rents an item to take care of the

service of the loans, or else would have led to the abandonment or drastic curtailment of the policy because of the impairment of the credit of the city. The attack on the policy of paying for the houses out of current taxation was virtually an attack on the basic policy of providing housing without a charge against the tenant for the use of the capital embodied in the buildings.

If the buildings were not to be regarded as capital; if the city was to derive no revenue from the investment, then the decision of the party leaders to pay as they went along was entirely sound. Borrowing would have withdrawn as much capital from other uses as did taxation, unless the borrowing were done abroad. Foreign borrowing for a purpose which in no way improved the ability of the community to make foreign payments would have been dangerous. There is no economy in borrowing—assuming that interest and ultimately principal are actually to be paid. The interest rate on municipal building loans would have had to be high, even if the loan service had been made a charge against the properties; it would have had to be still higher if backed only by the general credit of the city, which indeed would probably have been exhausted long before the completion of the second five-year program.

The building of the houses was a measure of direct relief of economic distress, and as such it was properly regarded as a current expense. Borrowing could have been justified only if there was a probability that the city's ability to pay would be materially increased before the maturity of the loans; there was no reason to anticipate such a change.

## V. THE BASIC POLICY

There are three principal ways in which the task of building and renting out homes to urban workers may be performed. First, the job may be left to private enterprise with appropriate legislative and administrative supervision.

Second, it may be regarded as a public utility and handled by the city on a business basis. This plan, it is claimed by its advocates, would make possible certain economies in the purchase of material, assurance of cheaper credit, and protection of the public against excessive promotion costs. It would also make it possible for building to go forward at the risk of the public at times when private capitalists are more than ordinarily reluctant to put funds into such long-time non-liquid investment—as was the case in Vienna after the war, and as is the case everywhere in times of severe depression. The city would not undertake to give the renter something for nothing, but would rather endeavor to assure him his money's worth. This policy would probably have been approved by a majority of the opposition party in Vienna at the time the housing program was put into effect, and during the following decade.

Third, housing may be regarded as a community facility, to be paid for out of taxes, just like schools and parks. This is substantially the theory on which the Social Democratic party of Vienna defends its program.

The actual practice in Vienna constitutes a compromise between the second and third of these plans. The capital costs are met out of taxes, as they would be under the third plan, while the operation of the buildings, including repairs, is treated as a self-supporting public utility, as it would be under the second plan.

It is probable that anyone's judgment on the larger

question as to whether it is desirable that housing shall be furnished free or at less than cost, like the use of parks and schools, will be influenced more by general social attitudes than by a study of the working of any specific example. Vienna's experience throws light on the question what it is feasible to do; not on the desirability of its being done. My own conclusions are as follows:

First, I cannot accept the theory that the provision of shelter, like the provision of schools, streets, and parks, is a service which ought ideally to be rendered by the city without direct cost to the occupant. The community facilities which are customarily furnished free are those which it is desired especially to foster, like education; those for which collection of direct payments for use would be impracticable or wasteful, like streets and police protection; and those intended for the use of the indigent, like almshouses. Shelter, like food, can be paid for directly by the user; I see no reason why it should not be sold rather than given away.

Second, the experience of Vienna affords little support for the idea that if shelter is to be paid for by the occupants it can be built and operated as a public utility more economically than by private enterprise. Vienna has built economically and efficiently, but the building cost data which we have assembled do not indicate any decisive superiority of public over private enterprise. And we believe that in this respect the experiment has been conducted under unusually favorable conditions. One cannot assume that municipal officials as a whole will display the zeal for the public interest, or manifest the administrative ability which was characteristic of the municipal government in Vienna under the Social Democratic party.

Third, given the rent restriction, the level of wages

which it made possible, and the post-war scarcity of capital, it was impossible to charge rents high enough to cover the full amount of the costs. But the rents could, and I think should, have been set considerably higher. Certainly there is no sound basis for the distinction which has been made between capital costs and operating costs. Interest and amortization of building costs are just as necessary and legitimate parts of the cost of shelter as are the insurance premiums and the cost of cleaning chimneys.

The provision of shelter at less than its full cost can be justified as a matter of social policy when there is genuine inability to pay, but the rates charged in Vienna are below the ability of a substantial part of the population to pay, as is evidenced by the long lists of unsatisfied applicants. Higher rents would have made funds available for more rapid building. If some of the individuals who now occupy the new buildings had been excluded by a different rent policy, they could have been accommodated in the apartments vacated by the more fortunate applicants. Even now the city furnishes both types of accommodation. The Housing Bureau has to decide in some way who is to get a new apartment and who is to be accommodated in barracks and in the 5,500 old dwellings which the city administers. Allocation on the basis of willingness and ability to pay would simplify administration and relieve no less distress.

Fourth, the housing program of Vienna was a development out of specific housing conditions, tax policies, building regulations, war-time adjustments, and class controversies, most of which were peculiar to Vienna. Neither the acute housing shortage which characterized the early post-war years and called for emergency relief, nor the very bad housing tradition of the city which

was the occasion for the permanent policy, goes far to demonstrate that the provision of shelter is in general one of those services which cannot be performed satisfactorily through private enterprise without governmental subsidy or governmental participation.

To be sure, no city can leave the building of homes to unregulated building enterprise. Fire protection, sanitation, traffic control, and the development of the city along rational lines all require centralized control. And the control system of old Vienna was notoriously weak.<sup>8</sup> But the fact that private enterprise cannot function satisfactorily without supervision, and functions badly with bad supervision, does not discredit private enterprise with reasonably good supervision.

More significant even than the weakness of the building code was the vicious character of the taxing system of pre-war Austria. Not only was the building industry subject to all the taxes and fees to which other industries were liable; in addition it was burdened with a heavy tax on gross rentals; in Vienna in 1914, 40 per cent.

In the writer's opinion this tax was the primary cause of the extreme overcrowding and the very low qualitative standards of housing which characterized the city. To the extent that the rent was paid for the advantage of location, the tax presumably fell on the owner of the land, or on some previous owner, but in so far as the rent was a compensation for improvements, the tax bore directly on the tenant, and in such a way as to put a tremendous penalty on any expenditure for housing that could be avoided. For every dollar that the tenant paid the landlord for the use of capital and for the work of management, 66 cents was paid to the government. That is, the tenant of the typical small dwelling, a living

<sup>8</sup> Compare Appendix B.

room, a sleeping chamber and a kitchen, was paying for another full-sized room which he did not get. To get three full rooms he had to pay for five. Just as in the Middle Ages the window tax forced people to live in darkness, and just as in the early modern era salt taxes taught them to eat their food unsalted, so the rental tax forced extreme economy of housing construction and housing space.<sup>9</sup>

Likewise the post-war distress and the absolute dearth of private building capital resulted, not from free enterprise, but from public interference with the play of free enterprise. Capital for private building was not to be had. This was true partly because the inflation and the disruption of economic life had interrupted the accumulation of savings by private investors at home, and because housing is a very difficult sort of business to finance on foreign capital, but chiefly because of the rent restriction.

From war to inflation, from inflation to rent restriction, from rent restriction to public housing is a logical sequence. Rent restriction destroyed faith in investment in housing just as inflation destroyed faith in bonds and mortgages and savings deposits. It also destroyed the mobility of the population, freezing the existing distri-

<sup>9</sup> Dr. Karl Pribram concluded in 1912, on the basis of a study of the rentals and the rates of rent taxation in Austrian cities, that the rate of tax was not an important determinant of the rents. (Karl Pribram, "Wohngrösse und Mietzinshöhe in den Hauszinssteuerpflichtigen Orten Oesterreichs," *Statistischer Monatschrift*, Vol. XVII, November 1912.) The correlation between the rate of rent tax and the proportion of one-room dwellings for 62 Austrian cities was only +.21 (computed for this study from Dr. Pribram's data without weighting for size of city). Since, however, the tax was not less than 22.77 per cent, nor more than 47.25 per cent, in any of the cities, and since comparisons are affected by numerous other elements of disparity, the data do not seem to me to overthrow the presumption that such a heavy tax on shelter must have forced economy in its use.

bution of apartments and obstructing their re-allocation in accordance with changing needs and changing financial abilities, and thereby curtailing the effective supply. Under these conditions it is not strange that private enterprise "failed."

Given the conditions which existed in Vienna after the war, public housing construction was a necessity. Confronted with this necessity the city government rose to the occasion admirably. The work was done with efficiency, and apparently with honesty, and the program was carried through with remarkable speed. Vienna has proved that it is possible for a poverty-stricken city, at a time when private enterprise has been driven out of the housing field, to provide decent homes for its poor at nominal cost to them, and pay for the homes out of taxation.

The conditions which led to the initiation of the housing program have in part passed away, but only in part. Capital in Austria, as in other countries which suffered from war and inflation, is still much scarcer and dearer than before the war. Investment in houses and in mortgages is still in disfavor and the rents necessary to attract private capital into the industry in any large quantity would be prohibitively high. Conditions therefore still justify public activity in the housing field to the extent that a genuine shortage of housing exists. Much of the apparent shortage, however, must be due to the abnormally low rents. The existence of a condition which justifies the provision of housing at less than cost could be tested only by experimentation with higher rents.



## APPENDIXES



## APPENDIX A

### AGE OF VIENNA HOUSES

The census of 1910 showed 39,268 inhabited buildings containing 497,549 dwellings. The age of these buildings and dwellings is shown in the accompanying table. The census shows the number of individual dwellings in the houses of each size from 1 dwelling to 20, but lumps larger buildings together into groups of from 21 to 30 dwellings, 31 to 40, 41 to 50, 51 to 100, and over 100 dwellings. It is possible, therefore, to classify accurately only the dwellings in buildings of known age which contain 20 apartments or less. For the remaining 272,217 dwellings we must resort to estimates.

For 28,040 dwellings in 3,993 buildings with 20 dwellings or less, the time of building is unknown. Undoubtedly, these buildings are mostly old. We shall not go so far as do the Austrian official statistical publications which count all the buildings of unknown age as having been built before 1860;<sup>1</sup> but we shall assume that of the dwellings in houses of unknown age, 85 per cent were erected before 1860, 10 per cent from 1860 to 1880, 4 per cent from 1881 to 1900, and 1 per cent from 1901 to 1910.

For the buildings with more than 20 dwellings we make an estimate as follows: In the year 1910 the average number of dwellings was 30.4 per building. It seems probable that on the average the buildings with especially large numbers of apartments were built more recently. To test the correctness of the hypothesis we have classified the houses with more than 20 dwellings according to the number of dwellings, on the basis of the censuses of December 31, 1880, 1890, and 1910 respectively.

<sup>1</sup> *Oesterreichische Statistik*, New Series, Vol. 4, Pt. 1, pp. 42\*-48\*.

OCCUPIED BUILDINGS, DECEMBER 31, 1910\*  
Classified by Date of Erection and Number of Dwellings

Number of Dwellings in House	Number of Houses Built					Number of Dwellings Built						
	Before 1860	1860 to 1880	1881 to 1900	1901 to 1910	Un- known	Total	Before 1860	1860 to 1880	1881 to 1900	1901 to 1910	Un- known	Total
1.....	822	1,240	1,737	1,078	857	5,734	822	1,240	1,737	1,078	857	5,734
2.....	656	679	958	521	445	3,259	1,312	1,358	1,916	1,042	890	6,518
3.....	475	428	537	304	309	2,053	1,425	1,284	1,611	912	927	6,159
4.....	441	337	373	234	241	1,626	1,764	1,348	1,492	936	964	6,504
5.....	342	289	314	163	185	1,293	1,710	1,445	1,570	815	925	6,465
6.....	326	266	260	159	166	1,177	1,956	1,596	1,560	954	996	7,062
7.....	307	292	257	213	187	1,256	2,149	2,044	1,799	1,491	1,309	8,792
8.....	297	290	283	199	173	1,242	2,376	2,320	2,264	1,592	1,384	9,936
9.....	309	325	314	207	138	1,293	2,781	2,925	2,826	1,863	1,242	11,637
10.....	268	323	319	188	133	1,231	2,680	3,230	3,190	1,880	1,330	12,310
11.....	233	339	367	209	154	1,302	2,563	3,729	4,037	2,299	1,694	14,322
12.....	206	372	324	202	143	1,247	2,472	4,464	3,888	2,424	1,716	14,964
13.....	221	295	339	179	137	1,171	2,873	3,835	4,407	2,327	1,781	15,223
14.....	173	291	352	207	118	1,141	2,422	4,074	4,928	2,898	1,652	15,974
15.....	195	308	343	228	132	1,206	2,925	4,620	5,145	3,420	1,980	18,090
16.....	189	277	326	203	131	1,126	3,024	4,432	5,216	3,248	2,096	18,016
17.....	147	240	296	181	108	972	2,499	4,080	5,032	3,077	1,836	16,574
18.....	130	178	266	164	85	823	2,340	3,204	4,788	2,952	1,530	14,814
19.....	103	224	346	170	89	932	1,957	4,256	6,574	3,230	1,691	17,708
20.....	98	194	310	167	62	831	1,960	3,880	6,200	3,340	1,240	16,620
Total 1-20.....	5,938	7,187	8,621	5,176	3,993	30,915	44,010	59,364	70,180	41,778	28,040	243,372
Over 20.....	759	1,400	3,441	2,219	534	8,353	...	...	...	...	...	253,177
Grand total.....	6,697	8,587	12,062	7,395	4,527	39,268	...	...	...	...	...	497,549

\* See Oesterreichische Statistik, New Ser. v, Vol. 4, Pt. 1, pp. 26, 45.

INHABITED BUILDINGS WITH MORE THAN 20 APARTMENTS, 1880-1910<sup>a</sup>  
According to the Successive Censuses of Dwellings

Dwellings	Former City Territory <sup>b</sup>		Entire City Territory <sup>c</sup>	
	1880	1890	1890	1910
21-30.....	1,303	1,768	2,860	5,059
31-40.....	305	476	777	2,166
41-50.....	89	129	221	711
51-100.....	67	102	136	393
Over 100.....	11	7	10	24
Total.....	1,775	2,482	4,004	8,353

<sup>a</sup> See *Die k.k. Reichshaupt- und Residenzstadt Wien, Ergebnisse der Volkszählung vom 31. December 1880*, Pt. 1. *Wohnverhältnisse*, pp. 88-89; *Die Wohnverhältnisse in Wien, Ergebnisse der Volkszählung vom 31. December 1890*, pp. 138-39; *Oesterreichische Statistik*, New Series, Vol. 4, Pt. 1, p. 26.

<sup>b</sup> Territory before the extensions of 1890.

<sup>c</sup> Territory at the time of the census.

It will be noted that the proportion of buildings with more than 30 apartments, among the buildings with more than 20, was greater in 1910 than in 1880 (39.4 per cent as against 26.6 per cent). We shall allow for the trend toward larger size by figuring that the average number of dwellings in the houses built before 1860 was 27, and in those built in the three succeeding periods, 29.5, 31, and 32 respectively.

On this basis the 497,549 dwellings reported as of December 31, 1910 may be classified as follows:

Time Built	Number	Per Cent
Before 1860 .....	100,600	20.2
1860-80 .....	105,050	21.1
1881-1900 .....	178,650	35.9
1901-10 .....	113,250	22.8

More recent information is not at hand, but it is clear that since 1910 fully 10,000 dwellings have been torn down, and fully 100,000 new ones erected. It appears reasonable to conclude therefore that about one-third of all the dwellings in the city are over 50 years old, and another third over 30 years old.

## APPENDIX B

### BUILDING CODES

To understand the housing situation it is necessary to know something not only of the ordinances under which building is currently going forward, but also concerning the standards of the recent past; for, since a new building code never requires the demolition of all existing structures, the standards of the past in large part determine those of the present. This is particularly true in the older parts of the civilized world where neither depreciation nor obsolescence proceeds at the rate which Americans regard as normal. As has been shown in Appendix A, nearly one-sixth of all the dwellings in Vienna antedate the destruction of the walls and moats around the Inner City, which occurred in 1859. Many of them indeed date from the period prior to the earliest codification of the building regulations, which took place in 1829. About one-fifth of the present-day dwellings of Vienna date from the period 1859-82. We shall therefore review briefly the development of the building code of Vienna in the nineteenth century.

The authority to make building regulations for the city of Vienna was vested, not in the city government, but in the government of Austria. This was true throughout the nineteenth century and was still true at the time of the most recent revision of the building ordinance, in 1930. The city government was charged, however, with the enforcement of building regulations, and frequently recommendations affecting the building requirements were made by the city authorities. In some cases the regulations applicable to Vienna were part of the general regulations controlling the entire country, but usually specific requirements were laid down for the city and its suburbs.

## I. BUILDING REGULATIONS BEFORE 1859

Government regulations affecting construction of private dwellings were in effect from at least the early part of the eighteenth century. These included restrictions as to the height of buildings, protection against fire hazards, and approval of architectural designs by a commission for beautifying the city. We shall, however, begin our survey with the first formal building code, that of 1829. The most important housing standards established by this code were the following:

- (a) The erection of attic dwellings was prohibited.
- (b) Every new building was to be provided with its own water supply. (This did not mean that water need be brought into each individual dwelling; merely that there must be running water in the building).
- (c) Basement dwellings were prohibited in the Inner City and in those suburbs where the streets were paved. In these areas the ground floor of all new buildings must be at least six inches above the level of the paving.
- (d) The apartments and the courtyards must be sufficiently spacious. The only definite rule laid down was an old one, namely, that the height of rooms that were not arched should be not less than nine feet, and that of arched rooms not less than ten feet. However, the city authorities were authorized to require a higher standard in cases where considerations of health made it advisable.

Except for two points, this code controlled the building of homes in Vienna for a period of 30 years. In 1836 lower Austria passed an ordinance which embodied the following changes:

- (1) Every dwelling which contained more than three rooms must have its own toilet; dwellings with less than three rooms must have at least one toilet for every two dwellings. Every toilet must have an inside width of three feet and a door opening of two feet six inches. The

entrance to the toilet must be as far as possible from the interior of the dwellings; the toilet must be so located that it would not diffuse a foul odor or prevent the circulation of pure air.

(2) In the interest of "health, morality and comfort" each individual dwelling must contain at least a living room (*Zimmer*), a sleeping chamber (*Kabinett*), and a kitchen.<sup>1</sup>

The rule of 1836 relative to the minimum number of rooms was in force only for twelve years. Immediately following the revolution of 1848 the Mayor of Vienna was authorized to permit, at his discretion, the construction of dwellings of one room and kitchen, or one room equipped for light housekeeping ("*mit Notherden*").

## II. BUILDING REGULATIONS, 1859-82

The ordinance of 1859 followed that of 1829 in prohibiting the erection of attic dwellings, and in requiring running water in each building, but repealed the provisions of the ordinance of 1829 regarding underground dwellings. It permitted their construction if they were entirely dry, well lighted, and ventilated, and had half their height above the level of the street, or if one entire wall were exposed to the light. It confirmed the rule of 1848 which permitted one-room dwellings. It placed on the building authorities only a general obligation to require adequate size of rooms and also of courtyards. Finally, the new ordinance omitted entirely the requirements of the ordinance of 1829 relative to the number of toilets. It permitted their erection with a width of two feet nine inches, compared with the minimum requirement of three feet under the earlier law. The building authorities were given "the determination of such exceptions to the building requirements as they were not already authorized to make." On the whole, therefore,

<sup>1</sup> For explanation of these terms, see p. 7.

the ordinance of 1859 permitted lower building standards than did that of 1829.

The next ordinance, that of 1868, embodied some advance, but more regression. The requirements as to the first floor and underground dwellings were made stricter. Dwellings below street level were permitted only on condition that they were fully dry, lighted and ventilated, and that the house was not exposed to flood. Specifically, they must have at least one-half their height above the level of the street or above the level of a court of at least 80 square yards area, or else on one side the whole height of the room must be exposed to the light. All general provisions as to the size of dwelling rooms and courts, however, were abolished.

In the next year the provisions as to underground dwellings were weakened by changing the phrase "fully dry, lighted, and ventilated" to read "fully dry," and the minimum height above ground was changed from one-half the height of the wall to a minimum of four and one-half feet. At the same time provision was made for the building of a special class of dwelling under much less restrictive regulations. These buildings were permitted (a) outside the city of Vienna in a fully detached position; that is, with every point of the building at least 10 *klafter* (about 62 feet) away from all other buildings; and (b) both inside and outside of Vienna in places which the government considered appropriate. The height of such dwellings was limited to three stories and the length to 12 *klafter* (74 feet). In these buildings attic dwellings were permitted and the toilets could be outside the building—one being required for every four dwellings.

### III. THE BUILDING CODE OF 1883

The building code of 1883, which remained in force until 1930, embodied the standards under which the

great majority of the present-day dwellings in Vienna were constructed. It brought in the following important changes from previous standards:

(a) A general rule was laid down to the effect that 15 per cent of the area of every building plot must be left open and of this area the major part must be in the main courtyard. Light courts by which dwelling rooms or kitchens were illuminated must cover at least 12 square meters ground space, while shafts which served only to light corridors or unoccupied rooms must cover at least 6 square meters. Shafts intended solely for ventilation of toilets might be as small as one square meter. In special cases where building sites could not otherwise be used advantageously, or those where the courts of several buildings or building sites came together, the building authorities might permit modifications of the requirements as to light and air.

It is not clear that this requirement, though it was more specific, was really any more strict than the requirements of previous laws, for since there was no mention of any exceptions to the 15 per cent rule except in the direction of reducing the requirement, there was established a quasi-vested right of landlords always to build up at least 85 per cent of the area.

(b) The requirements for underground dwellings were more precise than in the ordinance of 1868 and somewhat more restrictive. In newly constructed buildings, the floors of all ground-floor dwellings must, subject to certain exceptions, be at least 15 centimeters above the level of street and court. The construction of dwelling quarters below this level was permitted under the following limitations:

(1) Such apartments must be protected against flood or dampness.

(2) In case their height was not more than 4 meters at least half the height must be above the street or court, and the court

must be at least 5 meters wide and have an area of 75 square meters.

(3) In case they were more than 4 meters high, the floor in no case might be more than 2 meters under the level of the ground.

(4) If half the height was not above ground or if the violation of the requirement last stated was absolutely necessary, the dwelling must be provided with a light shaft at least 2 meters wide and extending clear to the floor of the basement story, and approved by the building authorities.

(5) Outside the house wall there must be a second wall not less than 30 centimeters away from the first, and the air space thus created must be connected with the outside air.

(6) Dwelling apartments must be separated from cellar rooms by well ventilated passages.

(7) In basement kitchens and laundry rooms proper provision must be made for light and for carrying off the steam.

(c) The provisions as to the number and equipment of toilets were made somewhat more strict. There must be at least one toilet for every two dwellings; it must be at least 90 centimeters wide and 1.1 meters long, and must be lighted and ventilated. Water supply was not made absolutely mandatory.

(d) The construction of attic dwellings was prohibited.

(e) In general the rules concerning the erection of dwelling houses with modified requirements were made more rigid. The prohibition on dwelling rooms in attics could be relaxed only in the case of an individual family home or villa. The erection of outside toilets might be permitted only for one-story houses. There must be at least one toilet for every two dwellings.

The chief criticisms directed against the ordinance of 1883 were the following:

First, it declared that dwelling rooms should be light and capable of being ventilated, but it permitted dwelling rooms without outside windows;

Second, it required that courtyards should satisfy the requirements of sanitation as to light and air, but it set up as a test only that 15 per cent of the building space should remain free and that light courts through which dwelling rooms or kitchens were illuminated must have 12 square meters ground space; and it permitted the building authorities to relax even these requirements;

Third, it permitted underground dwellings so long as half their height was above the street or court level.

Fourth, it did not require individual family toilets.

The new building ordinance was received with approval by the city government. In the annual report of the city for 1884 it was stated that the City Council had often had occasion to make use of the authority reserved to the building supervisors, and especially the authority to permit, in corner locations, courts with less area than 15 per cent of the total.

#### IV. AGITATION FOR REFORM, 1890-1914

During a large part of the long period when the building ordinance of 1883 was in force, its requirements were the subject of heated controversy. There was a widespread recognition of the fact that in certain respects the standards of life which it recognized were below the customary standards of other centers of western civilization, but there was also solid opposition to any action which would increase building costs.

In 1892 the city building bureau prepared a draft of a new ordinance, and the Austrian Association of Engineers and Architects published another. In 1894, on the basis of these, together with another draft submitted by an individual engineer, a committee from the City Council prepared a fourth draft, which was laid before the Council in January 1895. Nearly two years later, in December 1896, the Council directed the Vice-Mayor to appoint a committee of the City Council which should

associate experts with itself to deliberate over these proposals and submit its own recommendations.

In 1897 the city government came for the first time into the hands of the Christian-Socialist party. The new mayor, Karl Lueger, who was the founder of the party, said in his inaugural address:

The formation of a new and modern building ordinance will receive immediate attention. We must not permit the ground to be mercilessly built up to the last square meter; we must not allow the community to carry all the burdens and private individuals to grasp all the advantages; space must be kept free for light and air.

This brave beginning was not followed by action. The committee which was appointed in January held numerous sessions, studied the four drafts which had been laid before it and called in expert advisers, but failed to reach any agreement. In 1899 the committee was dissolved and a commission was appointed. This body discussed and investigated and held hearings for seven years and then submitted to the City Council a draft of a new ordinance, which was presently referred back to it for further investigation. In the summer of 1907 the City Council took up the question again, but postponed action for a year and a half. In November 1908 it authorized a further investigation.

In the fall of 1909 the Council once more addressed itself to the building question and actually adopted some amendments to the proposed ordinance. On November 19, however, it voted to postpone action and to hold hearings at which all interested parties would be given an opportunity to appear.

Early in 1910 Lueger died, 13 years after the inaugural address in which he had announced that the preparation of a new and modernized building ordinance would be given immediate attention. His successor, in

his inaugural address of May 14, 1910, renewed the party's pledge:

In the question of the regulation and planning of the city's architecture the revered tradition of the late Mayor will be continued. We must carry through the program of a new building ordinance embodying modern artistic and hygienic ideas, without regard to special interests which conflict with the common good.

Five months later the hearings were opened; ten sessions were held in a period of three months.

The proposed ordinance was not in most respects radical. It prohibited the erection of new basement dwellings, but did not interfere with the occupancy of those already in use. A number of important provisions relative to the size of courtyards were not to take effect until the second re-building of existing structures. The 85 per cent rule was supplanted by a more elastic provision which made the amount of required court space depend on the height of the wall; a rule which was sufficiently liberal to permit 75 per cent utilization of space by four-story structures, and in certain cases to permit even a 90 per cent utilization. The building of dwelling rooms and kitchens and servants' rooms with no outside windows was not forbidden, and a common toilet was permitted for two dwellings if the two together comprised not more than three living rooms and two kitchens.

In spite of the modest character of the proposed reforms, the plan evoked violent opposition. The hearings centered chiefly around three questions: kitchen windows, two-family toilets, and basement dwellings. Of these issues the most important was that of the kitchen window, for an effective requirement of outside windows in apartment kitchens would have necessitated a complete change in the customary layout of the buildings.

Representatives of the construction and housing industries argued that the added cost would make it im-

possible for the laboring population to pay rents that would cover the costs. They suggested also that the appearance of the streets would suffer if kitchen windows full of milk bottles, lard pails, and wash cloths adorned the façade. Adherents of this viewpoint contended that there was more social pressure to take care of the cleanliness and appearance of a kitchen which opened on a public hallway than of a room which opened only on an outside window—which in many cases was never opened.

On the other side were arrayed representatives of the associations of architects and physicians and of tenants—the Association for Housing Reform, and the Society for Public Health. They rested their case chiefly on the efficacy of light and air as foes of the "*Wiener Krankheit*"—tuberculosis of the lungs.

Representatives of the architects claimed that the real economy in the conventional plan was the saving in architects' fees. They urged that, with proper planning, buildings could be arranged with outside kitchen windows on almost all sites with very little added cost, and a negligible loss of utilized space.

The questions of common toilets and of underground dwellings brought out much the same alignment of parties, and much the same arguments on both sides. Architects, physicians, tenants, and the reform organizations emphasized the protection of health and minimized the cost involved in providing conveniences in every dwelling and in the elimination of basement apartments, while representatives of the building interests belittled the health argument and contended that the whole ordinance, and this provision in particular, might be summarized in a single phrase: "The building of low-cost dwellings is forbidden."

The outcome of the hearings was a victory for the established order. The ordinance of 1883 remained in force without material amendment.

## V. WAR-TIME AND POST-WAR DEVELOPMENTS

During the war the need of building reform, of course, fell completely into oblivion. Very few buildings were erected after the first year of the war, and the housing shortage was so acute that no one worried about reforming standards of quality. But after the revolution the political privileges of property owners were abolished and the "reform" element in the community gained enormously in influence. But the lack of capital for new building was so complete, and the housing shortage was still so acute, that for the time being the issue was of no practical importance. After the decree of March 28, 1918, which permitted the occupancy of space hitherto regarded as unfit for habitation,<sup>2</sup> the building regulations were relaxed by a law of June 17, 1920 which removed certain existing restrictions so far as they applied to small buildings, buildings isolated from one another, and temporary emergency structures.

During the ensuing years nearly all new building was carried out by the municipality, and as we note elsewhere, embodied much stricter standards than were required by existing law. Not until 1929 was serious attention given to the reform of the housing code. In November of that year the law of 1883 was finally repealed; a new code went into effect in May of the following year.

The most important provisions of the ordinance of 1930 are as follows:

(a) For the main windows of rooms which are intended for continuous occupancy there must be a free entrance of light at an angle of not less than 45 degrees from the vertical.

(b) Basement and attic dwellings are prohibited (with certain exceptions).

<sup>2</sup> See pp. 43-44.

(c) Dwelling rooms for single persons are permitted, the minimum floor space in this case being 18 square meters.

(d) Except as just noted, every dwelling must have at least 35 square meters of floor space and must consist of at least two rooms, and have its own toilet within the dwelling. Each dwelling must also be provided with its own space for the storage of fuel.

(e) Wherever running water is available there must be a spigot in every dwelling.

## APPENDIX C

### CHANGES IN THE NUMBER OF HOUSEHOLDS

According to the census of 1910,<sup>1</sup> which was the last census in which the data were collected concerning households as such, the following distribution of the heads of households was reported:

Single persons, in military service (not in barracks) . . . . .	307
Other "single person households" . . . . .	28,578
Other ordinary households . . . . .	450,454
Institutional households . . . . .	654

Omitting the first and fourth of these categories, the heads of households were classified as follows:

	Male	Female
Unmarried . . . . .	28,726	27,682
Married . . . . .	328,992	8,333
Widowed, divorced, separated . . . . .	18,123	67,176

*Married persons.* The total number of households headed by married persons was 337,325. The total number of married women, on December 31, 1910, was 351,896, on January 31, 1920, 358,648.<sup>2</sup> If we assume that in 1920 the ratio of households headed by married persons to the total number of married women was the same as in 1910, the number of married heads of households in 1920 would have been 343,797, or 6,472 more than in 1910.

*Widowed, divorced, separated.* In 1910 the whole number of households headed by widowers was 18,123

<sup>1</sup> See *Oesterreichische Statistik*, New Series, Vol. 4, Pt. 3, pp. 58, 61.

<sup>2</sup> *Statistisches Jahrbuch der Stadt Wien für das Jahr 1912*, p. 904; *Statistisches Handbuch für die Republik Oesterreich*, VIII, 1927, p. 12.

and by widows 67,176. The numbers of widowers and of widows on December 31, 1910 were respectively 34,610 and 110,228; on January 31, 1920, 41,083 and 133,832. Taking the same proportion of widowed heads of households to widowed persons as in 1910, the number of heads of households for 1920 figures out:

Widowers, 21,512, or 3,389 more than in 1910

Widows, 81,561, or 14,385 more than in 1910

*Single persons.* By a similar comparison of the number of households headed by single persons with the number of single persons, we estimate that in 1920 there were 4,000 fewer households headed by single men and 397 more headed by single women than in 1910.

*Net change, 1910-20.* By combining these figures we get a total of 499,675 as the number of households which in 1920 would correspond to the number and makeup of the population if there had been no change since 1910 in housing conditions, buying power, or social attitudes.

*Net change, 1910-23.* For 1923 a similar computation was not possible because the structure of the population according to the family status is not known. At first glance it might appear that the number of households did not need to go up between January 13, 1920 and March 7, 1923 because the increase in the number of inhabitants was only 24,454 and is entirely accounted for by the return of 27,522 children from abroad. But in 1920-22 the number of marriages was extraordinarily high.<sup>3</sup> We feel safe, therefore, in assuming that for 1923 the number of heads of households increased over that for 1920 in the same proportion as the increase in the number of persons over 24 years of age, that is, in the ratio of 1,173,451 to 1,217,851. The result for 1923 is 518,581, an increase over 1910 of 39,547. As is noted

<sup>3</sup> Compare p. 50.

in Chapter III this is just about the amount of the increase which actually occurred.

Since 1923 the population of Vienna has decreased still further. The municipal statistical office estimates that the population at the end of 1930 was 1,841,299.<sup>4</sup> On the basis of the considerations already set forth, it is clear that no conclusions can be drawn from this fact with reference to the need for dwellings. As a matter of fact the number of adults in the interval had greatly increased. The number of persons eligible to vote in the national elections rose from 1,140,323 in 1923 to 1,279,551 in 1930. If we assume that the number of those who would have been heads of households according to the pre-war standard increased in the same proportion, it went up from 518,581 to 581,897; that is, by 63,316. This figure is greater than the increase in the number of dwellings.

<sup>4</sup> *Statistisches Taschenbuch für Wien*, 1930, p. 6.

## APPENDIX D

### LIGHT AND AIR IN SLEEPING ROOMS

On page 14 of Chapter I it was stated that at least 18 per cent of the population of pre-war Vienna slept in rooms which had windows opening only on stairway, hallway, or light shaft. We present here the details of the computation by which this figure was obtained.

Of the occupants of 33,285 dwellings with only one room, all the occupants of the 6,111 light shaft and hallway dwellings, and only those, slept in rooms which had no outside window. If we assume that these dwellings had on an average 2.36 occupants, as did all the one-room dwellings used exclusively for residence purposes, the number of occupants figures out roughly 14,400.

Of the 197,169 dwellings with two rooms, 4,910 or 2.5 per cent were light shaft or hallway dwellings. Most of the others had one room, as a rule the smaller one, with a window only on light shaft or hall. In estimating the number of occupants who slept in such rooms we must exclude the 5,814 dwellings which were used also for business purposes because we know nothing about their occupancy. Of the remaining 191,355 dwellings, 98,404 had not more than three occupants each; altogether they had 230,929. One might at first be inclined to suppose that nearly all these 230,929 persons slept in the rooms which had the outside windows. But it must be remembered that of these persons, 13 per cent lived in dwellings which had roomers or lodgers, and 20 per cent lived in dwellings which consisted only of sleeping chamber and kitchen. We shall surely not over-estimate if we assume that 7 per cent of these persons, or about 16,200, slept in rooms without outside windows. Of the 36,986 two-room dwellings with four occupants each we will assume that on the average one occupant each,

or a total of about 37,000, slept in rooms which had windows only on light shaft or hall. In the 55,965 two-room dwellings each of which had five or more occupants, or a total of 336,101, we shall assume that about 112,000 slept in rooms of this character. Thus in two-room dwellings which were used only for residence purposes, about 165,200 persons slept in rooms with window on light shaft or hallway. If we add 3 per cent for the dwellings used also for business purposes we shall get a total of roughly 170,000.

By a similar method of computation we estimate that in the three-room dwellings about 115,600 persons slept in rooms with no outside window.

For the 125,042 dwellings with four or more rooms, the estimate is much more uncertain. Only 808 such dwellings had no outside window. A more important quota is furnished by the occupants of the overcrowded dwellings, in which on the average there were more than two occupants to the room. Among this group there must have been at least 15,000 persons who slept in rooms with no outside window. As to the rest, it might appear offhand that in dwellings of four rooms or more which were not light shaft or hallway dwellings and were not overcrowded, comparatively few persons had to sleep in rooms without outside windows. But this conclusion is not warranted, for in these dwellings lived the bulk of the 101,364 domestic servants of Vienna, and most of these undoubtedly slept in rooms which had an opening only on a light shaft or hallway. Surely we shall not put the figure too high if we assume that 55,000, or 9 per cent, of the occupants of the dwellings of four rooms or more slept in dwellings without outside windows.

Thus it appears that of the total of 1,974,350 inhabitants of Vienna (excluding those who lived in institutions), at least 355,000, or 18 per cent, must have slept in rooms which had no outside ventilation.

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